

1913.

Annual Reports

AND

VITAL STATISTICS.

The Rural District of

BUCKLOW,

AND

The Urban Districts of

KNUTSFORD, WINSFORD, AND BIDDULPH.

PREPARED BY

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The Medical Officer of Health of the Districts.

**In accordance with Instructions from the Local
Government Board.**

Gongleton:

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INDEX . .

	PAGE
Introductory Letter... ..	3
Extracts from Medical Press	4
General Subjects	10
Winsford Urban District	16
Bucklow Rural District	37
Biddulph Urban District	67
Knutsford Urban District	90
Bucklow Joint Hospital Board	106
Postscriptum	110

To the Chairmen and Members of the several District Councils whose Reports follow:

Gentlemen,

I now present my nineteenth volume of Annual Reports. This annual duty demands increased time and trouble with each succeeding year, on account of increased requirements from the L.G.B. and C.C.

I have nothing special to mention this year, in this place. All that has been said in the letters of previous years still holds good.

After this volume, there will be no further Biddulph Report. I have resigned my office in that District, on account of increasing age, and distance, and difficulty and expense of travel. It causes me sincere regret, which is I believe shared by every Member and Officer of that Council.

I have taken the liberty to include again a few articles from the Medical Press on subjects of general interest, though not strictly falling within the limits of any Report.

I thank you for your continued confidence. It is a matter of legitimate and proper pride to feel the certain consciousness that my position as your Officer becomes more firmly fixed in your kindly regard with each year that passes.

I am, Gentlemen,

Your obedient Servant,

T. W. H. GARSTANG.

January 2nd, 1914.

I. Annual Report of the Local Government Board for 1912—13.

At the end of March, 1913, the Board had sanctioned the appointment of medical officers of health in 1,029 of the boroughs and urban districts in England and Wales and of 644 of those in the 661 rural districts. Excluding the county boroughs, in which the sanction of the Board carries with it no financial advantage to the district, there were 69 districts in which repayment of a moiety of the salary of the medical officer of health was not received from the Exchequer grants, and in 51 instances no application was made by the respective local authorities for such sanction. Where sanction was asked but refused the reasons given for refusing were that the salary was inadequate in four cases; that the medical officer of health appointed was unsatisfactory in three cases; that a medical officer of health was appointed without special qualifications when several candidates with a diploma in public health applied in three cases; that the medical officer of health who had served the district efficiently for some years was not re-appointed in two cases; that a medical officer of health was appointed who was a member of the district council in four cases; that the medical officer of health devoted insufficient time to the duties of his office in one case; and in one case because the district council persisted in appointing more than one medical officer of health. We have quoted in detail from the Board's report because it is eminently satisfactory to find that a more enlightened view is being taken by the Board's advisers with respect to its responsibilities in connection with the sanction of these appointments. For far too long it was the practice of the Board to give its sanction almost as a matter of course, and refusal of sanction was an extremely rare occurrence. Some years ago, for example, a memorial was sent from a large number of holders of public health diplomas to the then Parliamentary Secretary of the Board, Sir Walter Foster, and to Sir Richard Thorne, suggesting that the Board might advise local authorities to elect as medical officers of health, when vacancies occurred and when suitable candidates were available, those who were specially qualified in public health. The reply received by the memorialists was, that however much the Board might desire to carry out their wishes it could not do so without fresh legislation. It is distinctly satisfactory to find, therefore, that the Board now finds it can go a great deal further even than expressing a pious opinion, and has actually in three instances refused to sanction the appointment of a medical officer of health because the district councils failed to avail themselves of the opportunities for appointing those who held a public health diploma.

Excluding medical officers of health of the metropolitan borough councils and of the county councils, there were, at the end of March, 1913, about 1,500 medical officers of health in England and Wales, of whom nearly 1,300 were general practitioners. Of the whole-time

officers, 60 were attached to more than one district, the number of districts served by them being 332, including two port sanitary districts. The average population of the districts in which there is a whole-time medical officer of health is 100,000, and where there is a part-time officer it is about 10,000. The whole-time officers serve a total population of over 22 million, and the part-time officers a total population of about 14 million. When the first appointments of medical officers of health were compulsorily made in 1872, there were 249 districts with a whole-time medical officer of health, and there are now about 500 such districts.

II. Housing and Town Planning.

The memorandum which has just been issued by the Local Government Board relating to the work done under the Housing, Town Planning, etc., Act, 1909, brings up to the end of March, 1913, the information contained in the two previous memorandums on the same subject.

As a whole the Board appears to be satisfied with the work of inspection that has been, and is being, carried out in accordance with the Housing (Inspection of District) Regulations, 1910. These regulations contemplated that houses or areas regarded as most in need of inspection would be dealt with first, and where this has been done the result has been to secure the remedying of the worst conditions. The powers conferred by section 15 of the Act have been utilised very extensively by local authorities. During the period between the passing of the Act and the end of March, 1913, notices were served upon owners to put into a habitable condition 114,623 houses, and over 85,000 of these were dealt with satisfactorily by the owners. Nearly 4,000 houses were closed, and at 323 of them the necessary works were carried out by the local authority at the cost of the owners. On a comprehensive view of the action of local authorities and their officers, the Board considers that very distinct progress has been made in the direction of securing that houses shall be fit for habitation.

The information contained in the memorandum with respect to the closing and demolition of houses is of considerable interest. During the five years ending March, 1913, there were represented as uninhabitable 140,306 houses. More than 45,000 were made fit for habitation by the owners without the issue of a closing order, and over 16,000 were demolished. It thus appears that nearly 130,000 houses have been made fit for habitation at the cost of landlords or owners, in addition to a large number dealt with under the Public Health Acts and not under the Housing Acts.

The particulars of the provision of new houses which has been made by local authorities is the least satisfactory portion of the memorandum. During four years loans were sanctioned, or were under consideration by the Board, with respect to the erection of 6,286 houses in urban districts, and only 1,427 in rural districts, the total amount of the

loans being about one and three-quarter millions sterling. The progress made under the latest Housing Act is undoubtedly encouraging, but it will need to be sustained and, indeed, quickened, before the deplorable conditions known to exist in many districts are remedied.

III. IMPORTANT RULING AS TO THE STATUS AND POSITION OF A HEALTH DEPARTMENT AND ITS OFFICERS.

Local Government Board,
Whitehall, S.W.

9th January, 1914.

Sir,—I am directed by the Local Government Board to advert to your letter of the 27th November and previous correspondence applying for the Board's sanction to the dismissal of Dr. ———, Medical Officer of Health for the ——— Urban District.

I am to express the Board's regret that the adjustment of the differences between the Council and their Medical Officer of Health arrived at as a result of the inquiry held by two of the Board's Inspectors in July last has been so soon disturbed. It was part of that adjustment that the inspectors should assist the Council in defining the relations between the Medical Officer of Health and the Sanitary Staff, and at a discussion between the inspectors and a special committee on 23rd July, 1913, the following principles, amongst others, were laid down :

The Medical Officer of Health is the head of the Public Health Department, and the Inspector of Nuisances is not independent.

The Assistant Inspectors should report and take instructions from the Chief Inspector of Nuisances as a rule, but in necessary cases the Medical Officer of Health can direct the Assistant Inspectors as he thinks fit, informing the Chief Inspector of what he does or conferring with him first if time permits.

Drainage work and collection of house refuse to be under the direction of the Inspector of Nuisances, who will report and confer with the Medical Officer of Health when necessary with regard to them.

In the minutes and letter which were forwarded by you to the Board on the 27th November certain regulations are included which, it is stated, were arrived at with the full concurrence of the Inspectors. The regulations themselves, however, were not communicated to the Board or to their Inspectors, and they were not in complete accord with the principles laid down at the conference on July 23rd.

The Board attach considerable importance to the general principle that the Medical Officer of Health should be regarded as the chief officer of the Public Health Department, and they would refer to Article XX (1) of their General Order of 13th December, 1910, which requires the Inspector of Nuisances, subject to the directions of the Council, to perform his duties under the general supervision of the Medical Officer of Health. In their circular of 14th December forwarding a copy of

this order the Board drew attention to the fact that this article had been altered so as to emphasize the fact that “ the Inspector of Nuisances should, as a rule, act under the general supervision of the Medical Officer of Health, who must be regarded as the head of the Public Health Department of the Council.”

The Board consider, however, that having been informed of the regulations adopted by the Council as a result of the Consultative Committee's report, Dr. ——— acted improperly in varying the instructions given in Regulation 4 and in departing from Regulation 8. He should have represented his objections to these regulations to the Public Health Committee of the Council before giving directions to the inspectors and others. His report of 15th November, 1913, with reference to his action as to Regulation 4, was unfortunate in its tone and especially in its reference to and quotation from his Annual Report for 1912, in view of the terms of heading (2) of the adjustment arrived at during the public inquiry.

At the same time, though the Board consider that Dr. ——— is deserving of censure for departing from the regulations without the authority of the Committee, they are of opinion that, in view of the efficient manner in which he has discharged the duties of Medical Officer of Health in the district for a number of years, his departure from these regulations was not in itself a sufficient ground for the extreme step of dismissing him from office, and they request the District Council to take the matter into reconsideration. If the Council were to modify their new regulations so as to bring them into complete accord with the principles laid down at the conference, and if Dr. ——— would give an undertaking that he would in future strictly observe the regulations, the Board would suggest that the Council should withdraw their resolution suspending him from the office and their application to the Board for sanction to dismiss him.—I am, Sir, your obedient Servant,

(Signed) F. J. WILLIS,
Assistant Secretary.

IV. The Preparation of Statistics.

The Royal Sanitary Commission of 1869, which gave birth to the Local Government Board and which advised the compulsory appointment in every sanitary district of a medical officer of health, recommended that these officials should be empowered to obtain, at the office of the local authority, all reasonable assistance in the clerical work of their reports and statistical returns; and in a memorandum issued by members of the commission on the duties of medical officers of health, it was urged that the latter should not be burdened with unnecessary book-keeping, that the facts should be given by them, but as far as possible all books should be kept for them. How little this suggestion

has been carried out the vast majority of medical officers of health know to their cost. If there should ever be that inquiry into the working of the public health service which is so long overdue, and the need for which we have so constantly pleaded in these columns, no facts that are revealed will be more astounding than that of the employment of highly skilled public health specialists for many hours daily in the keeping of books and in the mere mechanical work of writing and copying reports and other documents. At no time of the year does this waste of good material appear more prominently than when the time approaches for every medical officer of health to prepare his annual report upon the year's working of his department for presentation to the authority he serves and indirectly to the Local Government Board, and in some cases to the county council.

We sometimes hear these annual reports criticised on the ground of their lack of originality, and the criticism, though justified, is only what might be expected when it is remembered that the labour of re-writing a book of some fifty or sixty pages of printed matter is no mean task. It is hardly surprising, therefore, that a medical officer of health should, year after year, take his previous annual report and make only just what alterations are necessary in his statistical records, etc., and in other ways reduce the amount of actual writing which he has to do. There must still, however, be made innumerable calculations of birth-rates, death-rates, sickness rates, etc.

V. Conscientious Objections to Vaccination.

Replying in Parliamentary papers to Mr. Ramsay Macdonald, who inquired as to the total number of exemption certificates or declarations of conscientious objection to vaccination received by vaccination officers during the calendar years of 1907-12 inclusive, and the percentage of such objections to total births registered during those years, Mr. Burns states that the figures are as follows:—

Year.	Exemptions.	Percentage of total births registered.
1907	57,675	6.3
1908	162,799	17.3
1909	190,689	20.9
1910	230,947	25.7
1911	248,483	28.2
1912	275,929	31.6

Provisional Vital Statistics for 1913.

The Registrar-General publishes the following provisional figures for the birth-rate, death-rate, and rate of infantile mortality during the year 1913:—

	Annual Rate, per 1,000 Living.			Deaths under 1 Year to 1,000 Births.
	Births.	Deaths.		
		Crude.	Stand-ardized*	
England and Wales	23·9	13·7	13·4	109
96 Great Towns, including London	25·1	14·3	14·7	116
145 Smaller Towns	23·9	12·8	13·0	112
England and Wales, less the 241 Towns	22·2	13·1	12·1	96
London	24·8	14·2	14·2	104
Bucklow Rural	16·5	9·4	9·7	91
Biddulph Urban	27·9	13·6	13·4	136
Knutsford Urban	23·0	11·1	10·8	67
Winsford Urban	23·5	13·9	13·1	145

* The standardized death-rates (formerly called corrected death-rates) are the rates which would have been recorded had the sex and age constitution of the populations of the several areas been identical with that of England and Wales as enumerated in 1901. A description of the method of standardising these death-rates is to be found in the Registrar-General's annual report for 1911, page xxix.

GENERAL SUBJECTS.



Printing.—In consequence of the practical difficulty of printing the Official Tables, with all their “Notes,” on pages of this size, the “Notes” are (as before) omitted from the Tables, to give more room for the figures; and, as they are practically only instructions to the M.O.H., I consider that they may be omitted altogether.

Instructions.—The official Memorandum which is annually issued by the Local Government Board, giving instructions as to the preparation of Reports, has been carefully observed; as also the aforesaid “Notes”; and advantage will be taken of the discretionary power now given in the words “nor is it intended that each subject should form the subject of full discussion in every report,” which admits as reasonable my suggestion last year that, in Districts like mine, on certain points “there is very little to say, and that little has been said in previous Reports.”

Arrangement.—I propose to follow my usual plan, that is, to write first a certain number of paragraphs, which are intended to be considered as an integral part of each of the individual Reports. It will not only save repetition, but it will allow me to take a broader view of certain matters than would be possible in an individual Report.

This year it is the turn of the Winsford Report to be written first; the others will follow in the usual order.

THE HOUSING PROBLEM.

This has been kept well to the front during 1913; popular attention has been widely aroused; and the Local Government Board has made repeated enquiries as to what progress can be recorded in each District. It is therefore unnecessary to discuss the subject further as a whole; local particulars will be found in each Report.

TUBERCULOSIS.

TABLE 2.

DISTRICT.	No. of Cases.				Dead.		Left District.		Convalescent; or in institutions; or otherwise not requiring supervision.		On list for supervision.	
	Brought forward from 1912; Phthisis.	Notified in 1913.		Total.								
		Phthisis.	Other Tuberculosis.									
					Ph.	O.T.	Ph.	O.T.	Ph.	O.T.	Ph.	O.T.
Bucklow R. ...	23	28	15	66	9	5	3	1	15	—	24	9
Biddulph U....	8	13	2	23	6	—	—	—	2	—	13	2
Knutsford U.	13	11	7	31	3	2	1	—	8	4	12	1
Winsford U....	7	11	8	26	2	2	1	—	1	1	14	5
Total ...	51	63	32	146	20	9	5	1	26	5	63	17

“Other forms of Tuberculosis” are now added to the list of notifiable diseases.

I have been surprised at the comparatively large number of cases notified; but I think it very probable that all (or nearly all) the cases are now known, and with precautions in each case against conveying infection more or less effectively carried out, a marked decrease in the number of new cases may be reasonably anticipated in future.

The number of deaths from phthisis (20) is the same as in 1912; but the case-mortality is only 17·5 per cent. instead of 25·0. Among other forms of tuberculosis, (32 cases, 9 deaths,) the case-mortality is 28 per cent.

A pleasing, and somewhat unexpected, feature is the number of old cases which report themselves as convalescent.

Sanatorium treatment was provided by the Bucklow Joint Hospital Board for 4 cases from Bucklow R.D. and 1 case from Knutsford U.D.; and by the County Insurance Committee for 5 cases from Bucklow R.D., 2 from Knutsford U.D., and 3 from Winsford U.D. One Bucklow and one Knutsford case also went to Sanatoria at their own expense.

Art. XII. of the General Order of 19th December, 1912, requires the investigation of cases to be made by the Medical Officer of Health "or an officer of the Local Authority acting under the instructions of the Medical Officer of Health." As no such officer exists in small Districts outside the Inspector of Nuisances, (who is often already overburdened,) this has led in most Districts to this important and confidential work being added to his duties. I myself consider that this procedure constitutes an injustice to the patient, and violates the confidential nature of the enquiry which is indicated as the intention of the Order in Art. XI. (2). Through quixotic conscientiousness I have personally retained this work in my own hands. The time and trouble it has cost me cannot be adequately described; and I am doubtful if I can continue to do the work in the same way, for purely physical reasons of time and space.

NOTIFIABLE INFECTIOUS DISEASES.

TABLE 3.

	Notifications.											
	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899	1900	1901
Bucklow R. ...	39	46	107	240	182	79	65	59	46	106	96	158
Biddulph U....	20	22	24	15	39	25	55	17	7	118	26	21
Knutsford U.	—	—	—	—	—	25	12	5	6	70	18	17
Winsford U....	42	40	43	267	31	47	197	47	22	39	147	93
	101	108	174	522	252	176	329	128	81	333	287	289
Middlewich U.	0	9	1	123	24	53	67	31	18	23	12	8
Northwich R.							270	162	95			

	Notifications.												
	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911 [*]	1912	1913 [†]	
Bucklow R....	102	97	117	108	106	72	105	206	123	131	74	134	
Biddulph U....	13	28	50	30	47	22	30	41	21	57	71	107	
Knutsford U.	8	25	17	14	57	64	14	9	60	35	21	27	
Winsford U....	44	23	43	51	38	80	280	468	79	45	104	182	
	167	173	227	203	248	238	429	724	283	268	270	450	
Middlewich U.	35	26	80	61	47	56	19	72					

* Now including Phthisis.

† Now including all forms of Tuberculosis.

TABLE 4.

Notifications in 1913.										
	Estimated Population.	Scarlet Fever.	Diphtheria.	Enteric Fever.	Puerperal Fever.	Erysipelas.	Phthisis.	Other Forms of Tuberculosis.	TOTAL.	Case-rate per 1000 of popula- tion.
Bucklow R.	23511	67	16	2	—	6	28	15	134	5.7
Biddulph U.	7660	14	78	—	—	—	13	2	107	13.9
Knutsford U.	5497*	1	4	1	1	2	11	7	27	4.9
Winsford U.	10850	16	120	4	2	19	11	8	182	16.8
	47518	98	218	7	3	27	63	32	450	9.5

* Excluding the Gaol.

These Tables contain an enormous mass of information, and afford means of numerous comparisons, of a most interesting nature, which unfortunately cannot be dealt with here (in the text) in detail. Like the similar Tables in the several Reports, they will convey this information to the reader whose eye is educated in tabular work, and who is interested in the history of epidemics during 24 years past, in his own, and neighbouring Districts.

Attention may just be drawn to the extraordinary prevalence of diphtheria in Biddulph and Winsford; which will be dealt with later on.

DEATHS FROM INFECTIOUS DISEASES.

TABLE 5.

Deaths from Infectious Diseases.												
	Poliomyelitis.	Cerebro-spinal Meningitis.	Scarlet Fever.	Diphtheria.	Enteric Fever.	Measles.	Whooping Cough.	Diarrhoea.	Phthisis.	Other Tuberculosis	TOTAL.	Rate.
Bucklow R.	0	0	2	0	0	2	4	6	11	8	33	1.1
Biddulph U.	1	1	0	3	0	2	6	3	8	0	24	3.1
Knutsford U.	0	0	0	0	0	0	0	0	4	0	4	0.8
Winsford U.	0	0	0	5	1	3	0	10	4	1	24	2.2
	1	1	2	8	1	7	10	19	27	9	85	1.8

This is a satisfactory Table, and calls for no comment.

ESTIMATES OF POPULATION.

As we pass further from the census year, these become more liable to error. I do not think there can be much wrong with the figures for 1913; and my careful attention will be given to securing accuracy, as far as possible, in succeeding years.

OFFICIAL INSTRUCTIONS.

L.G.B. Tables.—The Notes have been carefully read, and the instructions carried out. In Table I., the Rates for the District are calculated on nett figures, permanent officers of Institutions being included, and patients or pauper children being excluded. Transferable deaths have been dealt with as now prescribed. Of County Council Tables, one has been sent in manuscript to the County M.O.H., as it hardly varies from year to year, and is expensive to print.

Memorandum from P.M.O. of L.G.B.—This document, detailed instructions to a District M.O.H., as to what information he must include in his Annual Report, has been growing longer, and becoming more searching, each year. It is no

longer in the hands of the District M.O.H. to choose what matters he will treat of; and it is no longer in the power of a District Council to "edit" the report.

I desire to state therefore that I have followed the arrangement and instructions of this Memorandum. Distinguishing letters and figures at the head of paragraphs are copied from it; or from Art. XIX. of L.G.B. Order of 13th December, 1910.

T. W. H. GARSTANG.

February 11th, 1914.



Winsford Urban District.

ANNUAL REPORT OF MEDICAL OFFICER OF HEALTH FOR 1913.

Population at Census 1891, 10,440.

Population at Census 1901, 10,382. Decrease, 58.

Population at Census 1911, 10,772. Increase, 390.

Estimated Population, 1913, 10,850.

Area of District in Acres (exclusive of area covered by water) $5,780 - 100 = 5,680$.

Number of Inhabited Houses, 2,372.	} At Census of
Average Number of Persons per House, 4.54.	
	1911.

Institutions within the District receiving sick and infirm persons from outside the District: Albert Infirmary, in Wharton. (Receives from Middlewich).

Institutions outside the District receiving sick and infirm persons from the District: Union Workhouse, at Northwich. Infectious Diseases' Hospitals at Davenham and Marbury.

Other Institutions, the deaths in which have been distributed among the several localities in the District: Nil.

Birth Rate per 1,000 living, 23.5.

Death Rate per 1,000 living, (corrected) 13.1.

Death Rate from Seven Principal Zymotic Diseases, 1.7.

Deaths under one year in proportion to 1,000 Births 145.

Hospital: In Northwich Rural District.

Workhouse: In Northwich Urban District.

Each birth or death contributes to the Rate 0.09217.

TABLE 6.

(Local Government Board Table I.)

Vital Statistics of Whole District during 1913 and Previous Years.

Name of District, WINSFORD (URBAN).

YEAR.	Population estimated to Middle of each Year.	BIRTHS.			TOTAL DEATHS REGISTERED IN THE DISTRICT.		TRANSFER-ABLE DEATHS.		NETT DEATHS BELONGING TO THE DISTRICT.			
		Uncorrected Number.	Nett.		Number.	Rate.	of Non-residents registered in the District.	of Residents not registered in the District.	Under 1 Year of Age.		At all Ages.	
			Number.	Rate.					Number.	Rate per 1000 Net Births.	Number.	Rate.
1908	10655	276	...	25·9	160	...	3	7	43	156	164	15·4
1909	10694	269	...	25·1	138	...	4	8	31	115	142	13·3
1910	10733	287	...	26·7	136	...	3	...	24	84	133	12·4
1911	10772	268	...	24·9	145	...	1	4	39	147	148	13·7
1912	10811	284	...	26·3	153	...	2	18	29	102	169	15·6
1913	10850	255	..	23·5	149	...	11	13	37	145	151	13·1

TABLE 7.—(Local Government Board Table II.)
Cases of Infectious Disease notified during the Year 1913.
Name of District, WINSFORD (URBAN).

NOTIFIABLE DISEASE.	NUMBER OF CASES NOTIFIED.							TOTAL CASES NOTIFIED IN EACH LOCALITY.		TOTAL CASES REMOVED TO HOSPITAL.
	At all Ages.	At Ages—Years.						OVER.	WHARTON.	
		Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 45.	45 to 65.			
Small-pox ...	..	..	..	..	..	..	..	..	..	..
Cholera (C) Plague (P)	..	..	..	..	..	..	..	..	..	..
Diphtheria (including Membranous Croup)	120	24	68	16	9	3	..	46	74	101
Erysipelas ...	19	..	..	4	1	10	2	12	7	..
Scarlet Fever ...	16	4	9	1	2	..	..	13	3	12
Typhus Fever ...	..	..	..	..	..	..	..	..	..	..
Enteric Fever ...	4	..	2	..	2	..	..	1	3	4
Relapsing Fever (R)	..	..	..	..	..	..	..	..	..	..
Continued Fever (C)	..	..	..	..	..	..	..	..	..	..
Puerperal Fever ...	2	..	..	..	2	..	..	..	2	..
Cerebro-Spinal Meningitis ...	..	..	..	..	..	..	..	..	..	..
Poliomyelitis ...	2	2	..	..	..	..	..	2	..	..
Pulmonary Tuberculosis ...	11	..	..	4	6	1	..	8	3	3
Other forms of Tuberculosis ...	8	1	2	3	2	..	..	6	2	..
Totals ...	182	2	31	81	28	24	14	88	94	120

TABLE 8.

(Local Government Board Table III.)

Causes of, and Ages at, Death during the Year 1913.

Name of District, WINSFORD (URBAN).

CAUSES OF DEATH.	Nett Deaths at the subjoined ages of "Residents" whether occurring within or without the District.									Total Deaths whether of "Residents" or "non-Residents" in Institutions in the District.
	All Ages.	Under 1 year.	1 & under 2 years.	2 & under 5 years.	5 & under 15 years.	15 & under 25 years.	25 & under 45 years.	45 & under 65 years.	65 & up- wards.	
All Causes { Certified ...	151	37	4	7	10	6	13	29	45	17
Uncertified ..	...	...	...	...	...	...	...	...	...	..
Enteric Fever ...	1	...	...	...	...	...	1	...	...	...
Small-pox ...	...	...	...	...	...	...	...	...	...	...
Measles ...	3	1	...	2	...	...	...	...	...	...
Scarlet Fever ...	...	...	...	...	...	...	...	...	...	...
Whooping Cough ...	...	...	...	...	...	...	...	...	...	...
Diphtheria and Croup ...	6	...	...	2	3	...	1	...	...	...
Influenza ...	...	...	...	...	...	...	...	...	...	...
Erysipelas ...	3	2	...	...	...	...	...	1	...	...
Phthisis	...	...	...	...	...	...	...	...	...	...
(Pulmonary Tuberculosis)	4	...	...	...	1	2	1	...	...	...
Tuberculous Meningitis ...	1	...	...	...	...	1	...	...	...	...
Other Tuberculous Diseases	...	...	...	...	...	...	...	...	...	...
Cancer, Malignant Disease	16	...	...	...	1	...	1	5	9	1
Rheumatic Fever...	1	...	...	...	...	1	...	...	...	...
Meningitis..	1	...	1	...	...	...	...	...	...	...
Organic Heart Disease ...	21	1	...	...	...	1	1	8	10	2
Bronchitis ...	10	3	...	...	...	...	...	...	7	...
Pneumonia (all forms) ...	9	6	...	1	...	...	...	1	1	...
Other Diseases of Respira- tory Organs ...	1	...	1	...	...	...	...	...	...	...
Diarrhoea and Enteritis ...	10	9	1	...	...	...	...	...	...	...
Appendicitis and Typhlitis	5	...	...	...	3	...	1	1	...	6
Cirrhosis of Liver ...	1	...	...	...	...	...	...	...	1	...
Alcoholism ...	...	...	...	...	...	...	...	...	...	...
Nephritis & Bright's Disease	1	...	1	...	...	...	...	...	...	...
Puerperal Fever ...	...	...	...	...	...	...	...	...	...	...
Other Accidents and Dis- eases of Pregnancy and Parturition ...	1	...	...	...	...	...	1	...	...	...
Congenital Debility and Malformation, includ- ing Premature Birth ...	5	5	...	...	...	...	...	...	...	...
Violent Deaths, excluding Suicide ...	9	1	...	2	1	1	2	1	...	2
Suicide ...	1	...	...	...	...	...	1	...	...	...
Other Defined Diseases ...	41	9	...	...	1	...	4	11	16	6
Diseases ill-defined or un- known ...	...	...	...	...	...	...	...	...	...	...
Totals ...	151	37	4	7	10	6	13	29	45	17

TABLE 9.

(Local Government Board Table IV.)

Infant Mortality.

1913. Nett Deaths from stated causes at various Ages under 1 Year of Age.

Name of District, WINSFORD (URBAN).

CAUSE OF DEATH.			Under 1 Week.	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total under 4 Weeks.	4 Weeks and under 3 Months.	3 Months and under 6 Months.	6 Months and under 9 Months.	9 Months and under 12 Months.	Total Deaths under 1 Year.
All Causes.	Certified	...	3	3	2	4	12	10	6	4	5	37
	Uncertified	...	...	...	...	...	...	...	...	...	...	0
Small-pox	...	...	...	...	...	...	...	...	...	...	...	...
Chicken-pox	...	...	...	...	...	...	...	...	...	...	...	...
Measles	...	...	...	...	...	...	...	...	...	...	1	1
Scarlet Fever	...	...	...	...	...	...	...	...	...	...	...	...
Whooping Cough	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria and Croup	...	...	...	...	...	...	...	...	...	...	...	...
Erysipelas	...	...	...	1	...	...	1	...	...	...	1	2
Tuberculous Meningitis	...	...	...	...	...	...	...	...	...	...	...	...
Abdominal Tuberculosis	...	...	...	...	...	...	...	...	...	...	...	...
Other Tuberculous Diseases	...	...	...	...	...	...	...	...	...	...	...	...
Meningitis (not Tuberculous)	...	...	...	...	...	...	...	...	...	...	...	...
Convulsions	...	...	...	1	1	1	3	1	1	...	...	5
Laryngitis	...	...	...	...	...	...	...	...	...	...	...	...
Bronchitis	...	...	...	...	1	...	1	...	...	1	...	3
Pneumonia (all forms)	...	...	...	...	...	...	...	1	1	2	2	6
Diarrhoea	...	...	...	...	...	...	...	3	1	1	...	5
Enteritis	...	...	...	...	...	...	...	1	2	...	1	4
Gastritis	...	...	...	...	...	...	...	...	...	...	...	...
Syphilis	...	...	...	...	...	...	...	...	...	...	...	...
Rickets	...	...	...	...	...	...	...	...	...	...	...	...
Suffocation, overlying	...	...	...	...	...	...	...	...	...	...	...	...
Injury at Birth	...	...	1	...	...	...	1	...	...	...	...	1
Atelectasis	...	...	...	...	...	...	...	...	...	...	...	...
Congenital Malformations	...	...	...	...	...	...	...	...	...	...	...	...
Premature Birth	...	...	2	...	...	...	2	1	1	...	...	4
Atrophy, Debility, & Marasmus	...	...	1	...	...	...	1	...	...	...	...	1
Other Causes	...	...	...	...	...	3	3	2	...	...	...	5
Totals			3	3	2	4	12	10	6	4	5	37

Nett Births in the year { legitimate 236
 illegitimate 19

Nett Deaths in the year of { legitimate infants 30
 illegitimate infants 7

TABLE 10.—Births.

OVER.							
	M.	F.	Total.	Rate.	Of which Ille- gitimate.		
					M.	F.	Total.
1st Quarter	31	19	50	—	1	0	1
2nd „	24	23	47	—	0	3	3
3rd „	19	19	38	—	2	2	4
4th „	17	26	43	—	2	2	4
Total ...	91	87	178	24·2	5	7	12
WHARTON.							
1st Quarter	11	2	13	—	0	0	0
2nd „	10	8	18	—	2	1	3
3rd „	15	7	22	—	2	0	2
4th „	11	13	24	—	0	2	2
Total ...	47	30	77	22·1	4	3	7
Winsford Total	138	117	255	23·5	9	10	19

TABLE 11.

Shewing Deaths, Death-rates, Deaths from Special Diseases, and Old Age and Infantile Deaths, in the Four Quarters of the Year, 1913.

QUARTER ENDING.		Total Deaths.	Rate.	DEATHS.		Scarlet Fever.	Diphtheria.	Enteric Fever.	Measles.	Diarrhoea.	ZYMOTIC DEATHS.		Phthisis & Tuberculosis.
				At 65 Years and up- wards.	Under One Year.						Total.	Rate.	
March 31	...	41	14·3	10	11	0	2	1	2	1	6	2·2	1
June 30	...	58	20·1	19	12	0	2	0	0	4	6	2·2	3
Sept. 30	...	19	6·6	6	4	0	1	0	0	2	3	1·1	0
Dec. 31	...	33	11·4	10	10	0	1	0	0	3	4	1·5	1
Total	...	151	13·1	45	37	0	6	1	2	10	19	1·6	5

TABLE 12.

Notifications of Infectious Diseases.

Year.	Small-pox.	Cerebro-spinal Meningitis.	Polio-myelitis.	Typhus.	Scarlet Fever.	Diphtheria.	Enteric Fever.	Erysipelas.	Puerperal Fever.	Phthisis.	Other Forms of Tuberculosis.	TOTAL.
1890	—	—	—	—	23	9	3	6	1	—	—	42
1891	—	—	—	—	5	1	5	2	2	—	—	15
1892	—	—	—	—	14	12	—	17	—	—	—	43
1893	3	—	—	—	222	3	3	32	6	—	—	269
1894	—	—	—	—	11	—	3	7	2	—	—	23
1895	—	—	—	—	31	—	2	9	4	—	—	46
1896	—	—	—	—	173	4	1	17	2	—	—	197
1897	—	—	—	—	25	2	1	19	—	—	—	47
1898	—	—	—	—	11	2	1	7	1	—	—	22
1899	—	—	—	—	18	2	1	17	1	—	—	39
1900	—	—	—	—	114	6	4	21	2	—	—	147
1901	—	—	—	—	65	2	5	18	3	—	—	93
1902	—	—	—	—	20	8	1	12	3	—	—	44
1903	1	—	—	—	4	2	—	12	4	—	—	23
1904	—	—	—	—	20	1	2	20	—	—	—	43
1905	—	—	—	—	25	2	1	21	2	—	—	51
1906	—	—	—	—	6	9	2	19	2	—	—	38
1907	—	—	—	—	34	20	1	16	9	—	—	80
1908	—	—	—	1	228	29	4	14	4	—	—	280
1909	—	—	—	—	420	25	—	14	9	—	—	468
1910	—	—	—	—	55	8	—	14	1	—	—	78
1911	—	—	—	—	14	9	4	13	1	4	—	45
1912	—	1	—	—	9	46	16	15	2	16	—	104
1913	—	—	2	—	16	120	4	19	2	11	8	182

TABLE 13.

Deaths from Special Diseases.

Year.	Small-pox.	Cerebro-spinal Meningitis.	Scarlet Fever.	Diphtheria.	Enteric Fever.	Measles.	Whooping-cough.	Diarrhoea.	Phthisis.	Other Forms of Tuberculosis.	Puerperal Fever.	Erysipelas.	TOTAL.
1890	—	—	3	6	1	1	1	4	11	—	—	—	27
1891	—	—	—	2	—	—	13	7	14	—	—	1	37
1892	—	—	1	5	—	5	—	3	9	—	—	1	24
1893	1	—	7	1	—	—	—	11	12	—	3	1	36
1894	—	—	1	—	1	3	12	2	8	—	—	—	27
1895	—	—	3	—	—	9	1	17	10	—	5	—	45
1896	—	—	7	3	1	3	—	5	21	—	—	—	40
1897	—	—	—	—	—	1	33	11	11	—	—	—	56
1898	—	—	2	1	—	—	—	18	11	—	—	—	32
1899	—	—	1	—	—	7	3	6	13	—	1	1	32
1900	—	—	15	2	—	—	3	6	10	—	—	—	36
1901	—	—	2	1	2	—	1	4	6	—	—	2	18
1902	—	—	—	4	1	6	5	4	9	—	—	—	29
1903	—	—	—	—	—	—	1	8	8	—	1	—	18
1904	—	—	—	—	—	—	6	11	4	—	—	—	21
1905	—	—	1	—	—	21	1	6	5	—	1	2	37
1906	—	—	—	4	1	—	1	7	4	—	1	1	19
1907	—	—	—	5	—	1	3	2	5	—	5	1	22
1908	—	—	2	4	—	2	3	10	10	—	1	—	32
1909	—	—	8	4	—	—	—	3	5	—	2	—	22
1910	—	—	1	1	—	—	1	6	3	—	—	2	14
1911	—	—	—	—	—	—	1	14	4	—	1	—	20
1912	—	1	1	10	2	25	—	5	6	—	1	—	51
1913	—	—	—	5	1	3	—	10	4	1	—	3	27

TABLE 14.

Annual Report of the Medical Officer of Health for the year 1913, for the Urban District of Winsford, on the administration of the Factory and Workshop Act, 1901, in connection with Factories, Workshops, Workplaces and Homework.

1.—INSPECTION.

Including Inspections made by Sanitary Inspectors or Inspectors of Nuisances.

Premises.	Inspections.	Number of Written Notices.	Prosecutions.
Factories (Including Factory Laundries.)	38	...	...
Workshops (Including Workshop Laundries.)	124	...	...
Workplaces	16	...	...
Total	178	...	...

2.—DEFECTS FOUND.

Particulars.	Found.	Number of Defects Remedied	Referred to H.M. Inspector.	Number of Prosecutions
<i>Nuisances under the Public Health Acts :—</i>				
Want of Cleanliness	7	7	...	...
Other Nuisances	6	4	...	...
Sanitary Accommodation—				
Insufficient	1	1	...	...
Unsuitable or Defective	4	4	...	...
Total	18	16	...	...

3.—HOME WORK.

Wearing Apparel—	Lists received from Employers.		
	Lists.	Contractors.	Workmen.
Making, &c.	...	...	14
Total	2	2	14

4.—REGISTERED WORKSHOPS.

Number	114
---------------	-----

5.—OTHER MATTERS.

Matters notified to H.M. Inspector of Factories :—

Notified by H.M. Inspector	3
Reports (of Action taken) sent to H.M. Inspector	2
Underground Bakehouses—	
In use at the end of the year	2

TABLE 15.

CHESHIRE COUNTY COUNCIL.

Tabular Statement of Inspector of Nuisances for the Year ended
December 31st, 1913.

Winsford Urban District.

Nature of Inspections Made.	A Number	B Number of Notices served.		C Result of Service of Notices.			
		Statu- tory.	Inform- al.	Notices compli- ed with.	Remain- ing in hand	Prosecutions.	
						Insti- tuted.	Pend- ing.
1. Dwelling Houses (general inspections) ...	224	7	200	145	62	...	...
2. Cellar Dwellings	...	...	...	...	...	...	...
3. Back-to-Back Houses	...	...	...	...	...	...	...
4. Tents, Vans, Sheds, &c....	31	...	...	...	...	...	...
5. Courts, Yards, Passages ...	221	...	123	121	2	...	...
6. Privy-Middens, Earth or Pail Closets ..	1312	7	241	166	82	...	...
7. Cesspools	18	...	4	4	...	...	...
8. House Drainage	275	12	185	170	27	...	...
9. Ditches, Watercourses, &c.	6	...	2	2	...	...	...
10. Offensive Accumulations ..	28	2	6	8	...	...	...
11. The keeping of Animals (P.H.A., 1875, S. 91 (3))	32	...	9	8	1	...	...
12. Offensive Trades	4	...	1	1	...	...	...
13. (a) Slaughterhouses (Public)	...	...	...	...	...	...	...
(b) " " (Private)	84	...	4	4	...	...	...
(b) Other Places where Food is produced or sold	...	...	...	...	...	...	...
14. Piggeries	48	...	15	13	2	...	...
15. (a) Dairies... ..	162	...	146	138	8	...	...
(b) Cowsheds							
(c) Milkshops							
16. (a) Factories	38	...	5	5	...	...	...
(b) Workshops	124	...	7	5	2	...	...
(c) Workplaces	18	...	...	...	...	...	...
(d) Outworkers' Premises	16	...	...	...	...	...	...
17. Bakehouses (Overground)	46	...	6	6	...	...	...
" (Underground)	12	...	...	...	...	...	...
18. Common Lodging Houses	15	...	...	...	...	...	...
19. Houses let in Lodgings	...	...	...	...	...	...	...
20. Smoke Observations	8	...	4	4	...	...	...
21. Canal Boats	1	...	1	1	...	...	...
22. Infectious Disease Inquiries and Re-visits	662	...	...	...	...	...	...
23. Miscellaneous (including Ashpits, &c.)...	640	...	298	274	24	...	...
Totals	4025	28	1257	1075	210	...	...

(Signed) THOS. HICKSON, A.R.S.I.

WINSFORD URBAN DISTRICT.

Preliminary Note.—The matter found on pages 9 to 15, inclusive, is to be taken here as an integral part of this Report.

L.G.B. Tables.—The Notes have been carefully read, and the instructions carried out. (See page 14). The information asked for in Table II. will be found on p. 16. This District is a partner in a Joint Hospital Board, (with Northwich R., Northwich U., and Middlewich U.,) having a hospital at Davenham with 34 beds for 3 diseases; as well as the disused wooden buildings at Marbury, which are now kept for small-pox. There is no sanatorium for phthisis.

Memorandum from P.M.O. of L.G.B.—See p. 14.

A.—Natural and Social Conditions of the District.

(1).—*Physical features, &c.*

(2).—*Population, Social Conditions, &c.*

See p. 10; also p. 38 of A.R. 1908; and previous Reports.

No information about poor-law relief, nor about hospital and other forms of gratuitous medical relief.

B.—Sanitary Circumstances of the District.

Water Supply.—This is obtained from Little Budworth, and is spring water gathered and conducted through a 10 inch pipe to a reservoir situated in Whitby's Lane, in Over, with a capacity of one and a half million gallons. The total yield is 242,610 gallons per 24 hours. The supply is constant. The quality has always been pronounced excellent on chemical analysis. During 1913 several bacteriological analyses have been made, which have revealed the presence of an undesirable number of *B. coli*. Careful examination of the "Springs" discloses the fact that the soil is extremely light and porous, and that the surrounding land is heavily manured. The contamination is manurial, and of no immediate danger to the public health; but it is highly undesirable, and might be dangerous under certain unlikely, but possible, conditions; the Council is therefore giving the matter its most serious consideration.

Rivers and Streams.—No change. All particulars in last Report.

Drainage and Sewerage.—A new sewer has been laid in Station Road, but the houses are not yet connected. When this is done, the two old sewers, which run through private land behind the houses, one serving each side of the road, and which are of defective construction, will be cut off, and disused. There is no other new feature under this head.

Closet Accommodation.—Mr. Hickson reports as follows:—

“There are about 1054 cesspool closets,”—a type confined, so far as I know, to this District and one or two of its neighbours,—“and about 20 privy-middens; being a reduction of 136 in the year. Of these 125 have been converted to proper water-closets, and 11 to peat-pail closets; the latter being entirely at outlying places where there is no main sewer. There are about 875 water-closets, an increase of 137; 125 as above, 1 replacing a peat-pail, and 14 at houses newly erected. Of peat-pails there are 516, an increase of 10; 11 have taken the place of old privies, whilst 1 has been replaced by a water-closet.”

Scavenging.—This work has been re-organised, and the peat-pails have been placed under the control of the Inspector of Nuisances. The remainder of the scavenging is in the hands of the Surveyor. The peat-pails are now scavenged by contract, all team and manual labour being provided by the contractor, as also the place of deposit. The work is done between 10-0 p.m. and 6-0 a.m. instead of during the day-time. The pails are emptied, cleansed, and re-charged with peat-dust and vitriol once each week, a clean pail being left in exchange at each house. The manure is taken to a depot outside the District, and distributed on land well removed from inhabited parts. Privies are emptied quarterly by contract. The ash scavenging is carried out by the Surveyor and his staff; ash-bins being emptied fortnightly, and ash-pits monthly. 137 covered galvanised ash-bins have been provided during the year, for houses which had insanitary ash-pits, or no provision at all. Special circulars have been issued to all owners and occupiers requiring the provision of covered iron receptacles, and prohibiting the deposit of ashes or other refuse on the streets.

Sanitary Inspections of District.—Table 15 gives the details of the Inspector's work on a form prepared by the County M.O.H., and obviates the necessity of referring to details here. The Inspector is at work every day; and I accompany him to selected places or matters on each of my frequent visits. Further information will be given later under “Housing.” Another County Council Table (36, p. 53, A.R. 1911) has been sent in manuscript to the County M.O.H., as it is practically the same as before, and there is no need to print it again.

Premises and Occupations which can be Controlled by Bye-laws and Regulations.—There are no cellar-dwellings, and no offensive trades. There is only one common lodging-house in the District. The premises are always clean, the house is well conducted, and complies with the regulations. Vans used as

dwellings come into the District at fairs. 31 visits were made to them, but no cases of infectious disease were found, and no irregularities were noted. There are a few pleasure boats on the river, and a few carriages for hire in the town. Bye-laws have now been adopted for regulating these.

Schools.—A list of these was given in A.R. 1906, p. 87. Since then a large new school has been built in Gladstone Street. Children at school number about 2500. The sanitary condition and water supply of all is good. The following schools were closed during 1913 :—

Jan. 15 to 31.	Dierden Street	...	...	whooping-cough
Feb. 8 to 21.	Whitegate	...	...	influenza
July 17 to 26 and Oct. 25 to Nov. 8.	Dierden Street	...	...	diphtheria

The schools are disinfected at all holidays and also whenever specially closed.

The above list is much shorter than usual; and bears witness to the absence of the commoner epidemics.

Food. (a). Milk Supply.—162 inspections were made of Cowsheds, and limewashing enforced. No structural alterations were made, and no statutory notices were served.

It is out of my power to certify the wholesomeness of the milk; as there is no local action under the Food and Drugs Act; and milk is not sent from the District to Manchester, which, in some other Districts, is a source of information about tuberculous milk, as to which (as it is) I have no knowledge at all.

Food. (b). Other Foods.—Unsound food was not found. Food inspection is casual. The sanitary condition of premises where it is prepared, stored, or exposed for sale, is satisfactory as far as known. Bakehouses are regularly inspected, and generally found satisfactory. There are 21 private slaughter-houses, 19 licensed, and 2 registered. All licenses are renewed annually. Regular inspections and surprise visits have been made, and defects or nuisances found have been remedied or abated.

Two new buildings in Delamere Street take the place of two old ones now disused.

Food. (c). Sale of Food and Drugs Act.—This is administered by the County Council.

Housing.—Mr. Hickson's report is as follows :—

“ During the year 224 houses have been inspected in detail
 “ by the Inspector and afterwards visited by Dr. Garstang,
 “ viz. : 36 in Station Road, 2 in Dierden Street, 4 in Crook
 “ Lane, 14 in Wharton Road, 2 in East Dudley Street, 8

“in Ledward Street, 32 in Princess Street, and 2 in School Road, a total of 100 in Wharton. Also 31 in High Street, 13 in Weaver Street, 19 in Winnington Street, 19 in Gladstone Street, 17 in Dingle Lane, 6 in Chapel Street, 10 in Haigh Street, 6 in Latham Street, 3 in Delamere Street, a total of 124 in Over. The defects discovered at these inspections, after being carefully registered, have from time to time been the subject of Special Reports to the Health Committee and the Council, resulting in 7 statutory notices being served (on one owner) and 200 informal notices, by way of personal negotiations with owners, or agents, as to executing the required improvements. At 133 houses the whole of the work has been completed as arranged for; at 12 houses the improvements are partly executed; at 52 houses the work is already arranged for, the remainder being still in progress of negotiation. The improvements actually carried out, as a result of these inspections, include among other defects remedied, the conversion of 125 privy-cesspools to water-closets, 101 new house drains, with gullies, and all other requisites connected, and proper gradients to sewers, 93 rear yards newly paved, making smooth impervious surfaces, and properly graded to sewers, and the fixing of 91 new slopstones, fitted with lead piping and other requisites, where none previously existed.”

“A statement of other matters dealt with will be found under the Table of General Work.”

This is a good record of excellent work done; and it would have been still better, had not so large a part of Mr. Hickson's time been occupied in dealing with infectious disease. (See *postea*.)

Number of houses inspected under Sect. 17	...	...	224
„ found unfit for habitation	...	...	0
„ of representations (for closing orders)	...	...	0
„ of closing orders	...	...	0
„ of houses remedied without closing orders	...	133	
„ of houses remedied after closing order	...	...	0

General character of defects found:—defective paving and drainage, unauthorised obstructive out-buildings, defective floors, damp walls, want of slopstones, defective and insanitary privies and ash-pits.

I have drawn the attention of an Inspector of the Local Government Board, who has visited the District, to the great value of the work thus done, as it bears upon the question of the conversion of privies. If we took steps to enforce the conversion wholesale, (which has been suggested,) we should not

obtain such good results as we are actually getting, at the cost only of some delay, by dealing with individual cases, as they are inspected under the H.T.P. Act. Please refer to the illustration which I have had prepared to demonstrate and prove this. It shows the back view of a row of 10 cottages. Four, at the lower or left hand end, have been improved; the other 6 will follow. These latter show the old privy-cesspools (not midden-privies, because the joint ash-pit in the centre is dry,) built in pairs at the extremity of the yard. A bare order to convert would probably have resulted in the erection of an inferior type of water-closet on the same site, and nothing more. What has actually been obtained, by negociation and persuasion, is the abolition of the old building, the site being added to the yard; the erection of a first class closet, and wash-house, contiguous to the scullery; and general improvements (as required in each case) including paving and draining of yard, and provision of trapped gully; provision of slopstone and waste-pipe; and general repairs to house. The system is now recognised and established; no statutory notices are required; and the work is going steadily on, with a minimum of friction, and as fast as the local builders can deal with it.

The illustration should also be noted as showing the existence of plenty of open space in rear of the back-yards, adding largely to the air-space which might be reasonably calculated as available for each house. The majority of cottages in this District are in this fortunate position.

12 cases of over-crowding were found; 9 have been remedied, 3 are under observation.

12 new houses were built during the year. Supervision over the construction of new houses is in the Surveyor's hands; and as he is independent of the Health Department, he does not report to me, and I have no information to give. On all other points reference may be made to previous Reports.

Workshops.—The Home Office Table (Table 14) shows that supervision is maintained, and that there is little to find fault with.

C.—Sanitary Administration of the District.

1. *Staff.*—Mr. Wilkinson, the Surveyor, takes charge of the water supply, sewers, sewage disposal, scavenging, (except peat-pails,) and erection of new buildings; and (as stated above) is not regarded as a Public Health Officer. If the above matters are not, each and every one, "public health" matters, then language has no meaning. I have not previously made any attempt to upset an arrangement dating from prehistoric (sanitary) times; but it would appear that the time has now arrived when these matters should be placed under the control



IMPROVEMENTS TO COTTAGES AT WINSFORD.

of the Medical Officer of Health, whatever the title of the officer in immediate charge. Everything else relating to public health is in Mr. Hickson's hands. His own comment on 1912 was that the work involved in the supervision of cases of infectious disease had occupied so much time and energy that other important matters have had to receive less attention than he would have liked to give them. The same remark can be made with increased emphasis regarding 1913. He has been on the verge of breaking down under the strain, all along. Additional assistance is undoubtedly needed; and the Council is fully aware of it, but has postponed action in the hope that the exceptional stress of 1912 and 1913 will not be repeated, and further because it has a very natural disinclination to place the whole cost on the local rates, when the work is identically the same as that for which half cost is refunded in the case of the Inspector himself. As regards the first reason I regret to say the hope is not being realised; and the second is one (possibly) for negotiation with the L.G.B. My plain duty is to record that the need for additional assistance is urgent and imperative.

2. *Hospital*.—This is fully described on p. 32 of A.R. 1908. It has 34 beds, and serves an area with some 60,000 inhabitants. From this District we send to it every case that can properly be removed. Other Districts do just the opposite; and it is probably to this action on their part that we owe the ability of the hospital to receive all our patients. We have nothing to do with administration.

3. *Administration of local Acts or general Adoptive Acts*.—No Local Acts. Adopted Acts:—Infectious Diseases Prevention Act; P.H.A.A. Act 1890; Parts II., III., IV., of P.H.A.A. Act 1907. Their administration is in the routine work of the department, as and when they apply to a particular case.

I make a recommendation every year to adopt the Notification of Births Act, but so far unsuccessfully.

4. *Chemical and bacteriological work*.—The former goes to the County Analyst, the latter to Professor Delépine's laboratory. The specimens sent to the latter in 1913 were 39 diphtheria, (10 positive results), 3 enteric, (1 positive), 17 tuberculosis, (2 positive), 1 cerebro-spinal fluid, and 3 drinking-waters. Considering that there were 120 cases of diphtheria, 39 examinations is a very modest number; whilst the 15 negative results in cases of tuberculosis show that doubtful cases were well looked after. The credit for this belongs to the local medical profession.

D.—**Prevalence of and Control over Acute Infectious Diseases**.—Table 7 shows that we had a very busy and anxious year.

Diphtheria.—Table 12 should be carefully studied. After 17 years of practical immunity, 1907 suddenly produced 20 cases, 1908 29 cases, and 1909 25 cases. There was a lull in 1910 (8 cases), and 1911 (9 cases). Then 1912 had 46 cases, (see last Report); and now 1913 has had 120 cases; a very evil record, and one which has imposed a strain on the Inspector under which I have constantly expected him to collapse.

The following is an analysis of the cases :—

1913	Cases occurred.		Total.	Removed to Hospital.		Total.	Died.		Remarks.
	O.	W.		O.	W.		O.	W.	
Jan. ...	4	5	9	3	5	8	1	—	death in Hosp.
Feb. ...	2	7	9	2	7	9	—	1	„ at home
Mar. ...	2	—	2	1	—	1	—	—	
April ...	1	—	1	1	—	1	—	—	
May ...	3	3	6	3	1	4	—	—	
June ...	1	12	13	1	11	12	—	2	„ at home
July ...	13	19	32	7	18	25	—	—	
Aug. ...	3	5	8	2	4	6	—	—	
Sep. ...	5	3	8	5	3	8	1	—	„ in Hosp.
Oct. ...	1	9	10	1	8	9	—	1	„ in Hosp.
Nov. ...	9	10	19	6	9	15	—	—	
Dec. ...	2	1	3	2	1	3	—	—	
	46	74	120	34	67	101	2	4	

Compared with 10 deaths among 46 cases in 1912, this record of 6 deaths in 120 cases in 1913 must be considered highly satisfactory. Also the removal to Hospital of 101 cases out of 120 is very good work; and the number would have been even larger, had not the accommodation at the Hospital been over-taxed. The almost entire disappearance of the epidemic in March and April, followed by a serious increase in June and July, is noteworthy. The Dierden Street School was twice implicated, and was closed July 17th to 26th, and October 25th to November 8th; 6 cases on the former occasion and 13 on the latter forming definite groups; except for this the cases were widely scattered, and impossible in most instances to connect with one another. Wharton has only half the population of Over, yet it had 74 cases as against 46. During the progress of the epidemic its causation was a matter of earnest consideration. Many common causes could be at once rejected. Look-

ing back upon it now, my opinion is that, a fair proportion of the cases being of a mild type, there probably existed others still milder, which were never recognised, but which were still able to convey infection. The system of scavenging, whereby ash-pit contents were placed in the streets to wait (sometimes many hours) for a collecting cart, naturally offers itself as a possible means of distribution; and of course there is the awful condition of fouling of subsoil from thousands of cess-pits which has been often condemned ever since Annual Reports began to be written. Whether under pressure from the epidemic or not, the year 1913 has seen a genuine effort to remedy these matters. Ash-pits have been condemned; sanitary ash-bins are required; the deposit of their contents on the streets is prohibited; a very important new main sewer has been laid in Wharton; and conversion of privies to water-closets is steadily proceeding; hand in hand with general improvements to houses under the H.T.P. Act.

Reference to Table 7 (age-groups) will show that an unusually large number of cases occurred in persons of advanced age.

I regret to say that at the time of writing, (February, 1914), the epidemic is continuing.

Erysipelas.—19 cases; 3 deaths. The latter were a baby of 9 days (umbilical); a baby of 10 months; and a man of 45 years, who died of general pyæmia. The other cases were unimportant.

Scarlet Fever.—16 cases; 12 removed to hospital; no deaths. This disease fortunately required little attention. In Wharton there was 1 case in June, 1 in July, and 1 in October. In Over there was 1 case in March, 2 in April, 2 in July, 3 in August, 1 in October, 3 in November, and 1 in December. These did not at any time attain to the dignity of an epidemic.

Enteric Fever.—4 cases; all removed to hospital; 1 death. 3 cases occurred in March in one of the houses concerned in the Hill Street epidemic of the previous year. The other case occurred in August, and was never explained.

Puerperal Fever.—2 cases, which both occurred in the practice of midwives. One midwife has voluntarily retired; the other is under close observation.

Poliomyelitis.—2 cases. March 29th, F., 1 year. October 19th, M., 2 years. Both cases survive. Nothing is known of any special circumstances at beginning of illness. No measures were taken by the Health Department. The cases were not removed to hospital. There was no bacteriological verification of diagnosis. The medical men inform me:—(1) paresis and wasting of extensors and flexors of right leg. Is taken at intervals to Children's Hospital, Manchester, as out-patient.

(2) is improving under treatment; paralysis of muscles of right leg.

Measles.—6 cases known at High Street Council School in January. Otherwise absent.

Whooping Cough.—Dierden Street School closed January 15th to 31st, when 21 cases were reported, and 1 at Wharton School. 1 case was reported from St. John's School at the same time. 7 cases at Meadow Bank School in June.

Influenza.—To close Whitegate School for a fortnight in February is becoming an annual custom. As the scholars are widely scattered, it may be that this represents merely the natural decrease in attendance due to coughs and colds, wintry weather, and wet roads.

General.—There is no staff available to make and record investigations in any greater detail than is indicated above.

Every notified case is immediately visited, and (with few exceptions) removed to hospital. Obvious contacts are warned to keep themselves under the eye of the medical attendant. It is not possible to hunt for other contacts, nor for carriers. Return cases are practically unknown.

Mr. Hickson reports:—"140 houses, where infectious disease has occurred, also 9 houses where dirty and unwholesome conditions prevailed have been disinfected. 16 lots of bedding, clothing, and other articles having been in contact with infected patients, have been disinfected by the Steam Apparatus at Davenham Hospital. Also 4 houses, bedding, etc., have been disinfected after deaths from phthisis. 2 lots of bedding, etc., have been destroyed. 8 privy-middens, and 2 pail-closets have been specially scavenged. Also 69 privy-middens and 16 pail-closets specially disinfected after infection. 9 Schools have been twice disinfected during holidays; also one section of Wharton Girls' School has been twice disinfected, and the whole of Dierden Street School 3 times after the occurrence of diphtheria. All cases of infectious disease (except erysipelas) have received immediate personal attention on being notified, the infected house has at once been visited, the circumstances associated with the case investigated, and whenever possible the patient promptly removed to hospital, and where removal was considered impracticable, measures of isolation at once adopted. In all cases on the removal, or recovery, or death of a patient, disinfection of the premises has been immediately carried out."

E.—Prevalence of, and Control over, Tuberculosis.—7 cases of phthisis were on the register at the beginning of the year.

11 were notified during the year, and 8 of other forms of tuberculosis. The 7 old cases all survive, 2 being much improved. Of the 11 new cases, 2 died, and 1 left the District. 1 is improving. 3 have received Sanatorium treatment from the County Insurance Committee. There remain on the register at the end of the year 15 cases of phthisis, and 5 of other tuberculosis; 2 of the latter, of the 8 notified having died, and one turning out to be wrong diagnosis. This seems to be a very modest number. (a) Every case was visited by myself at the earliest convenient moment. (b) Subsequent visits have been made by myself, according to the severity of the case and the accessibility of the residence. (c) No arrangements have been made for the detection of other cases, beyond the free supply of "outfits" to the local medical men. (d) No arrangements as to tuberculosis officer or nurses. (e) Measures of cleansing and disinfection. See Inspector's report, *supra*.

The whole of the clerical work has been done by my own hand, and has formed a serious addition to my office work.

F.—Investigation of Other Diseases.—None has been made; and Table 8 shows that it is scarcely needed. 10 deaths are recorded from diarrhœa and enteritis. 4 were in Over; 3 in June and 1 in September; 6 were in Wharton; 1 in March, 1 in May, 1 in September, 1 in October, and 2 in November. There was thus no "epidemic"; the deaths are the usual annual toll paid by ignorance. They are very lamentable, and should be prevented if possible; but it is not possible for the staff (*i.e.* Mr. Hickson) to do anything in the matter. 9 deaths are recorded from pneumonia, 6 of them infants. The same remarks apply.

G.—Means for preventing Mortality in Child-birth and in Infancy.—There are 17 certified midwives (only 3 qualified), in the District, of whom 4 do scarcely any work; all are regularly visited and inspected by myself as deputy for the County M.O.H. I annually recommend the adoption of the Notification of Births Act, but so far have not been able to convince the Council of its value. One death was attributed to ophthalmia neonatorum and convulsions, an illegitimate child 24 days old. This is, to the best of my recollection, the first and only time that this ailment has been named in any of my Districts.

H.—Vital Statistics.—These will be found in Tables 6 to 11. The birth-rate, 23·5, is 2·3 higher than the 5 years' average, and is 1·3 above the Rate for Rural England and Wales. The death-rate, 13·1, is 1·0 below the average, and is 1·0 above the Rate for the country. The infant mortality figure, 145, is 24 above the average, and 49 above the Rate for the country.

Tables 12 and 13 are always peculiarly interesting to myself, and contain much valuable information as to epidemiology in the past history of the District (for 25 years) in a form in which the understanding eye can see at a glance the equivalent of many pages of description. The greater or less prevalence of each disease during the whole period is shown in the vertical columns of Table 12, and the character of each separate year in the horizontal lines. Table 13 shows the accompanying mortality in the same way.

Printing and Distribution of Report.—This has always been done as suggested. The Council asks me to draw the special attention of the L.G.B. to the good record of sanitary work done during 1913, and this I have much pleasure in doing, for I believe it to have been the best year's work on record.

Inspector's Report.—Mr. Hickson has made his usual valuable and carefully compiled annual report to me, and much of it is embodied in the earlier part of this Report. The following items are additional.

Factories and Workshops.—These places have been kept under observation, and inspections made as opportunity has rendered possible. Improved sanitary accommodation has been effected at three factories and two workshops, and additional means of escape, in case of fire, provided at two factories. Matters preferred by H.M. Inspector of Factories have received immediate attention.

Outworkers' Premises.—2 lists have been supplied by Messrs. Crook and Sons' Clothing Workshop, in Over, one in February, and one in August, each list containing 7 names. The homes where the work is carried on have been inspected at various dates and times, no matters of complaint having been noted.

Canal Boats.—Only 2 boats on the register; both trade outside the Council's area, coming to Winsford for repairs only. The large fleet of steamers and barges, owned by the several Salt Firms, whose head quarters are at Winsford, are all registered under the Merchant Shipping Acts, thereby precluding supervision by Officers of the Local Authority.

Conclusion.—I regret that my time is so broken by the demands of "out-door" work, and of routine clerical work, that it is almost impossible to find even a day undisturbed to devote to Report-writing. The result is that not only is the Report late in issue, but, as I am keenly conscious, it is "a thing of shreds and patches," and lacking literary polish. One credit only do I claim: the Report is honest, and it is complete, to the best of my knowledge and ability.

T. W. H. GARSTANG, D.P.H.

February 16th, 1914.

Bucklow Rural District.

ANNUAL REPORT OF MEDICAL OFFICER OF HEALTH FOR 1913.

Population at Census 1901, 19,850.

Population at Census 1911, 22,870. Increase, 3,020.

Ditto, less Public Institutions, 21,979.

Ditto, estimated for 1913, gross 23,511.
net 22,600.

Area of District in Acres (exclusive of area covered by water) $57,642 - 544 = 57,098$.

Number of Inhabited Houses, 4,971. } At Census of
Average Number of Persons per House, 4·4. } 1911.

Institutions within the District receiving sick and infirm persons from outside the District: St. Anne's Home, Dunham Massey, (Manchester Consumption Hospital). Baguley Sanatorium for Phthisis. (Manchester Corporation). David Lewis Epileptic Colony, Marthall.

Institutions outside the District receiving sick and infirm persons from the District: Union Workhouse, Knutsford. General Hospital, Altrincham. Manchester Royal Infirmary. Monsall Hospital for Infectious Diseases. (Manchester Corporation).

Other Institutions, the deaths in which have been distributed among the several localities in the District: Nil.

Birth Rate per 1,000 living, 16·5.

Death Rate per 1,000 living, 9·7.

Deaths under one year in proportion to 1,000 Births 91.

Hospital.

Workhouse. } See above.

Sanatorium. }

Each birth or death contributes to the Rate 0·04420.

TABLE 16.

(Local Government Board Table I.)

Vital Statistics of Whole District during 1913 and Previous Years.

Name of District, BUCKLOW (RURAL).

YEAR.	Gross Population.	Population estimated to Middle of each Year.	BIRTHS.			TOTAL DEATHS REGISTERED IN THE DISTRICT.		TRANSFER-ABLE DEATHS.		NETT DEATHS BELONGING TO THE DISTRICT.			
			Uncorrected Number.	Nett.		Number.	Rate.	of Non-residents registered in the District.	of Residents not registered in the District.	Under 1 Year of Age.		At all Ages.	
				Number.	Rate.					Number.	Rate per 1000 Net Births.	Number.	Rate.
1908	22020	21048	461	...	21'9	245	...	...	...	46	100	242	11'3
1909	22330	21358	423	...	19'8	214	...	...	...	28	66	259	12'1
1910	22640	21668	439	...	20'2	215	...	...	...	28	64	220	10'1
1911	22951	21979	417	...	19'0	262	...	38	34	46	110	258	11'7
1912	23262	22290	408	...	18'0	247	...	39	32	23	59	240	10'8
1913	23511	22600	374	...	16'5	258	...	76	30	34	91	212	9'7

TABLE 17.—(Local Government Board Table II.)
Cases of Infectious Disease notified during the Year 1913.
Name of District, BUCKLOW (RURAL).

NOTIFIABLE DISEASE.	NUMBER OF CASES NOTIFIED.							TOTAL CASES NOTIFIED IN EACH LOCALITY.					TOTAL CASES REMOVED TO HOSPITAL.	
	At Ages—Years.							Altrincham.	Lymm.	Knutsford.	Wilmslow.	Sale.		
	Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 45.	45 to 65.	65 and upwards.							
Small-pox ...	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cholera (C) Plague (P)	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diphtheria (including Membranous Croup)	..	3	6	2	4	..	1	15	..	..	..	1	..	12
Erysipelas ...	6	..	..	..	4	2	..	2	..	2	..	2	..	..
Scarlet Fever ...	67	12	41	8	5	..	..	8	5	3	4	47	..	52
Typhus Fever ...	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Enteric Fever ...	..	..	1	..	1	..	..	..	..	..	..	1	..	1
Relapsing Fever (R)	2	..	..	..	..	..	..	..	..	..	..	..	..	..
Continued Fever (C)	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Puerperal Fever ...	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cerebro-Spinal Meningitis ...	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Poliomyelitis ...	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Pulmonary Tuberculosis ...	28	..	2	6	12	7	1	16	1	..	3	8	..	11
Other forms of Tuberculosis ...	15	6	4	2	2	1	..	5	2	5	2	1	..	..
Totals ...	134	1	21	54	18	28	10	2	46	8	10	10	60	76

TABLE 18.

(Local Government Board Table III.)

Causes of, and Ages at, Death during the Year 1913.

Name of District, BUCKLOW (RURAL).

CAUSES OF DEATH.	Nett Deaths at the subjoined ages of "Residents" whether occurring within or without the District.									Total Deaths whether of "Residents" or "non-Residents" in Institutions in the District.
	All Ages.	Under 1 year.	1 & under 2 years.	2 & under 5 years.	5 & under 15 years.	15 & under 25 years.	25 & under 45 years.	45 & under 65 years.	65 & up- wards.	
All Causes { Certified ..	212	34	10	9	4	1	28	53	73	62
{ Uncertified ..	...	...	...	...	...	...	...	...	...	...
Enteric Fever ...	...	...	...	...	...	...	...	...	...	...
Small-pox ...	...	...	...	...	...	...	...	...	...	...
Measles ...	2	1	...	...	1	...	...	...	...	...
Scarlet Fever ...	2	...	...	...	1	...	1	...	...	...
Whooping Cough ...	4	1	2	1	...	...	...	...	...	...
Diphtheria and Croup ...	...	...	...	...	...	...	...	...	...	...
Influenza ...	1	...	...	...	...	...	...	1	...	...
Erysipelas ...	...	...	...	...	...	...	...	...	...	...
Phthisis	...	...	...	...	...	...	...	...	...	...
(Pulmonary Tuberculosis)	11	...	...	...	...	...	5	5	1	57
Tuberculous Meningitis ...	2	1	...	1	...	...	...	...	...	...
Other Tuberculous Diseases	6	...	2	1	...	...	3	...	...	...
Cancer, Malignant Disease	15	...	...	...	...	...	1	7	7	...
Rheumatic Fever...	...	...	...	...	...	...	...	...	...	...
Meningitis..	4	2	...	...	...	...	2	...	...	1
Organic Heart Disease	29	1	...	...	...	...	3	12	13	...
Bronchitis	10	2	2	1	...	...	...	3	2	...
Pneumonia (all forms)	14	2	...	...	...	...	3	3	5	...
Other Diseases of Respira- tory Organs	5	2	...	...	...	...	...	3	...	...
Diarrhoea and Enteritis ...	6	4	1	...	...	...	...	...	1	...
Appendicitis and Typhlitis	2	...	...	...	...	1	1	...	...	...
Cirrhosis of Liver	4	...	...	...	...	...	...	2	2	...
Alcoholism	...	...	...	...	...	...	...	...	...	...
Nephritis & Bright's Disease	6	...	...	...	...	...	2	1	3	...
Puerperal Fever ...	1	...	...	...	...	...	1	...	...	...
Other Accidents and Dis- eases of Pregnancy and Parturition	1	...	...	...	...	...	1	...	...	...
Congenital Debility and Malformation, includ- ing Premature Birth ...	10	10	...	...	...	...	...	...	...	...
Violent Deaths, excluding Suicide	6	...	...	...	1	...	1	1	3	...
Suicide ...	1	...	...	...	...	...	1	...	...	...
Other Defined Diseases ...	70	8	3	5	1	...	3	14	36	4
Diseases ill-defined or un- known...	...	...	...	...	...	...	...	...	...	...
Totals ...	212	34	10	9	4	1	28	53	73	62

TABLE 19.

(Local Government Board Table IV.)

Infant Mortality.

1913. Nett Deaths from stated causes at various Ages under 1 Year of Age.

Name of District, BUCKLOW (RURAL).

CAUSE OF DEATH.			Under 1 Week.	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total under 4 Weeks.	4 Weeks and under 3 Months.	3 Months and under 6 Months.	6 Months and under 9 Months.	9 Months and under 12 Months.	Total Deaths under 1 Year.
All Causes.	{ Certified ...	...	6	3	2	..	11	4	7	7	5	34
	{ Uncertified ...	...	..	..	..	..	..	..	..	..	..	0
{ Small-pox	...	...	..	..	..	..	..	..	..	..	..	..
{ Chicken-pox	..	...	..	..	..	..	..	..	..	..	..	..
{ Measles	...	...	..	..	..	..	..	1	..	..	..	1
{ Scarlet Fever	...	...	..	..	..	..	..	..	..	..	..	..
{ Whooping Cough	...	...	..	..	..	..	..	..	1	..	..	1
{ Diphtheria and Croup	...	...	..	..	..	..	..	..	..	..	..	..
{ Erysipelas	..	...	..	..	..	..	..	..	..	..	..	..
{ Tuberculous Meningitis	...	...	..	..	..	..	..	1	..	..	..	1
{ Abdominal Tuberculosis	...	...	..	..	..	..	..	..	..	..	..	..
{ Other Tuberculous Diseases	...	...	..	..	..	..	..	..	..	..	..	..
{ Meningitis (not Tuberculous)	...	...	..	..	..	..	..	..	..	2	..	2
{ Convulsions	...	...	..	1	1	..	2	1	3	1	..	7
{ Laryngitis	...	...	..	..	..	..	..	..	..	..	..	..
{ Bronchitis	...	...	..	..	..	..	..	2	..	..	..	2
{ Pneumonia (all forms)	...	...	..	..	..	..	..	..	..	1	1	2
{ Diarrhoea	...	...	..	..	..	..	..	..	..	..	..	..
{ Enteritis	...	...	..	1	1	..	2	..	1	..	1	4
{ Gastritis	...	...	..	..	..	..	..	..	..	..	..	..
{ Syphilis	...	...	..	..	..	..	..	..	..	..	..	..
{ Rickets	...	...	..	..	..	..	..	..	..	..	..	..
{ Suffocation, overlying	...	...	..	..	..	..	..	..	..	..	..	..
{ Injury at Birth	...	...	..	..	..	..	..	..	..	..	..	..
{ Atelectasis	...	...	..	1	..	..	1	..	..	..	..	1
{ Congenital Malformations	...	...	1	1	..	..	2	..	1	1	..	4
{ Premature Birth	...	...	3	..	..	..	3	..	..	..	1	4
{ Atrophy, Debility, & Marasmus	...	...	..	..	..	..	..	..	1	1	..	2
{ Other Causes	...	...	1	..	..	..	1	..	..	2	..	3
Totals			6	3	2	..	11	4	7	7	5	34

Nett Births in the year { legitimate 364
 { illegitimate 10

Nett Deaths in the year of { legitimate infants 32
 { illegitimate infants 2

TABLE 21.

Deaths 1913.

Rural part of Sub-District of	1st Quarter.		2nd Quarter.		3rd Quarter.		4th Quarter.		Total.	
	No.	Rate.	No.	Rate.	No.	Rate.	No.	Rate.	No.	Rate.
Altrincham	24	—	18	—	11	—	23	—	76	—
Lymm ...	6	—	5	—	6	—	5	—	22	—
Knutsford ...	13	—	12	—	5	—	11	—	41	—
Wilmslow .	5	—	11	—	12	—	5	—	33	—
Sale ...	12	—	8	—	10	—	10	—	40	—
Total ...	60	10·8	54	9·6	44	7·7	54	9·5	212	9·7

TABLE 22.

Cases of Infectious Diseases notified, 1913, arranged according to Localities.

	Scarlet Fever.	Diphtheria.	Enteric Fever.	Erysipelas.	Puerperal Fever.	Phthisis.	Other Tuberculosis.	Total.		Scarlet Fever.	Diphtheria.	Enteric Fever.	Erysipelas.	Puerperal Fever.	Phthisis.	Other Tuberculosis.	Total.
Ashley ...	9	...	...	...	...	...	...	9	Agden ...	...	...	...	...	...	...	...	...
Dunham Massey ...	3	3	...	...	...	7	3	16	Aston-by-Budworth ...	...	...	...	...	...	...	...	...
Ringway ...	...	...	...	...	...	...	...	...	Bollington ...	...	...	...	...	...	...	...	...
Timperley ...	5	3	...	2	...	9	2	21	High Legh ...	5	...	...	...	...	1	...	6
<i>Altrincham District</i> }	8	15	...	2	...	16	5	46	Millington ...	...	...	...	...	...	...	...	...
Bexton ...	...	...	...	...	...	...	...	...	Partington ...	...	...	...	...	...	...	2	2
Marthall ...	...	...	1	...	...	...	...	1	Warburton ...	...	...	...	...	...	...	...	...
Mere ...	2	...	...	...	...	1	...	3	<i>Lymm District</i> ...	5	...	...	...	...	1	2	8
Ollerton ...	1	...	...	...	...	1	...	2	Mobberley ...	...	...	1	...	...	...	...	1
Peover Inferior ...	...	...	...	...	...	...	...	...	Northern Etchells ...	...	...	...	...	...	2	2	4
Peover Superior ...	...	...	1	...	...	1	...	2	Styal ...	4	...	...	...	...	1	...	5
Pickmere ...	...	...	...	...	...	...	...	...	<i>Wilmslow District</i> ...	4	...	1	...	...	3	2	10
Plumbley ...	...	...	...	...	...	...	...	...	Baguley ...	3	...	...	...	2	...	...	5
Rostherne ...	...	...	...	...	...	2	...	2	Carrington ...	1	...	...	...	...	...	...	1
Tabley Inferior ...	...	...	...	...	...	...	...	...	Northenden ...	43	1	1	2	...	6	1	54
Tabley Superior ...	...	...	...	...	...	...	...	...	<i>Sale District</i> ...	47	1	1	2	...	8	1	60
Tatton ...	...	...	...	...	...	...	...	...	SUMMARY :								
Toft ...	...	...	...	...	...	...	...	...	<i>Altrincham</i> ...	8	15	...	2	...	16	5	46
<i>Knutsford District</i> ...	3	...	2	...	...	5	...	10	<i>Lymm</i> ...	3	...	2	...	...	5	...	10
									<i>Knutsford</i> ...	5	...	...	...	...	1	2	8
									<i>Wilmslow</i> ...	4	...	1	...	...	3	2	10
									<i>Sale</i> ...	47	1	1	2	...	8	1	60
									<i>Bucklow District</i> ...	67	16	2	6	...	28	15	134

TABLE 23.

Shewing Population, Census, 1911; Total Deaths, Deaths from Special Diseases, and at Special Ages, in entire Sanitary District, the Registration Sub-Districts, and the individual Townships, in 1913.

POPULATION CENSUS 1911.	REGISTRATION DISTRICTS AND TOWNSHIPS.	TOTAL DEATHS.	DEATHS FROM SPECIAL DISEASES.								TWO GROUPS OF AGES.		
			Scarlet Fever.	Diphtheria. Enteric Fever.	Measles.	Whooping Cough.	Diarrhoea.	Puerperal Fever.	Phthisis.	Other Tuberculosis.	At 65 Years and Upwards.	Under 1 Year.	
418	Ashley	6	...	...	...	1	...	...	1	...	...	2	...
2928	Dunham Massey	28	...	...	...	1	3	...	...	1	1	4	8
452	Ringway	5	...	...	...	...	...	...	...	...	...	2	...
4090	Timperley	37	...	...	...	...	1	2	...	3	1	12	6
7888	<i>Altrincham District</i>	76	...	...	...	2	4	2	1	4	2	20	14
102	Agden	...	...	...	...	...	...	...	...	...	...	...	...
406	Aston-by-Budworth	1	...	...	...	...	...	...	...	...	...	1	...
193	Bollington	2	...	...	...	...	...	...	...	...	...	1	...
778	High Legh	8	...	...	...	...	...	...	...	...	...	6	...
233	Millington	...	...	...	...	...	...	...	...	...	...	...	...
758	Partington	7	...	...	...	...	...	...	...	...	...	2	3
403	Warburton	4	...	...	...	...	...	...	...	...	...	3	...
2873	<i>Lymm District</i>	22	...	...	...	...	...	...	...	...	...	13	3
101	Bexton	1	...	...	...	...	...	...	...	...	...	...	...
524	Marshall	1	...	...	...	...	...	...	...	...	...	...	...
467	Mere	4	...	...	...	...	...	...	...	...	...	2	...
259	Ollerton	2	...	...	...	...	...	...	...	...	...	...	1
148	Peover Inferior	3	...	...	...	...	...	...	...	...	...	2	1
574	Peover Superior	10	...	...	...	...	...	...	...	1	...	3	3
244	Pickmere	2	...	...	...	...	...	...	...	...	...	1	...
359	Plumley	5	1	...	...	...	...	...	...	...	...	1	1
382	Rostherne	3	...	...	...	...	...	1	...	...	1	...	1
139	Tabley Inferior	1	...	...	...	...	...	...	...	...	...	...	...
479	Tabley Superior	5	...	...	...	...	...	...	1	...	...	4	...
119	Tatton	...	...	...	...	...	...	...	...	...	...	...	...
187	Toft	4	...	...	...	...	...	...	1	...	...	4	...
3982	<i>Knutsford District</i>	41	1	...	...	...	...	1	...	2	2	17	7
1406	Mobberley	19	...	...	...	...	...	2	...	...	...	7	3
823	Northern Etchells	7	...	...	...	...	...	1	...	1	1	...	2
1309	Styal	7	...	...	...	...	...	...	...	...	1	4	...
3538	<i>Wilmslow District</i>	33	...	...	...	...	...	3	...	1	2	11	5
970	Baguley	7	...	...	...	...	...	...	...	2	...	2	1
522	Carrington	11	...	...	...	...	...	...	...	...	1	3	2
3097	Northenden	22	1	...	...	...	...	...	...	2	1	7	2
4589	<i>Sale District</i>	40	1	...	...	...	...	...	...	4	2	12	5
22870	{ <i>Bucklow Rural</i> <i>District.</i> }	212	2	...	...	2	4	6	1	11	8	73	34

TABLE 24.

Notifications of Infectious Diseases.

Year.	Small-pox.	Scarlatina.	Diphtheria.	Enteric Fever.	Puerperal Fever.	Phthisis.	Other Tuber- culosis.	Erysipelas.	TOTAL.
1890	—	26	5	5	1	—	—	2	39
1891	—	28	5	7	—	—	—	8	48
1892	—	68	8	18	2	—	—	11	107
1893	—	193	18	14	1	—	—	14	240
1894	1	116	40	7	2	—	—	16	182
1895	2	39	19	11	3	—	—	5	79
1896	—	31	9	19	1	—	—	5	65
1897	—	42	3	8	—	—	—	6	59
1898	—	19	11	6	—	—	—	9	45
1899	—	83	6	7	2	—	—	8	106
1900	—	79	8	6	—	—	—	3	96
1901	—	120	23	6	—	—	—	9	158
1902	—	46	37	6	4	—	—	9	102
1903	6	52	25	7	—	—	—	7	97
1904	—	79	27	2	3	—	—	6	117
1905	—	58	31	2	3	—	—	14	108
1906	—	75	17	5	1	—	—	8	106
1907	—	53	9	4	1	—	—	5	72
1908	1	65	25	2	2	—	—	10	105
1909	—	156	7	41	1	—	—	1	206
1910	—	94	14	6	1	—	—	8	123
1911	—	70	13	19	2	10	—	17	131
1912	—	28	6	2	1	32	—	5	74
1913	—	67	16	2	—	28	15	6	134

TABLE 25.
Deaths from Special Diseases.

Year.	Small-pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Enteric Fever.	Diarrhoea.	Phthisis.	Other Tuberculosis.	Erysipelas.	Puerperal Fever.
1890	—	5	1	—	3	3	8	43	—	1	1
1891	—	1	1	1	5	4	6	40	—	—	—
1892	—	13	3	1	7	3	6	32	—	2	2
1893	2	3	6	6	1	7	18	28	—	3	1
1894	—	1	4	5	8	1	5	29	—	3	1
1895	1	—	2	5	3	4	2	22	—	1	3
1896	—	1	—	6	3	3	4	23	—	—	1
1897	—	16	1	2	1	3	15	26	—	—	—
1898	—	3	1	2	—	2	11	19	—	—	—
1899	—	—	3	1	7	3	16	29	—	1	2
1900	—	—	1	1	8	1	7	22	—	—	—
1901	—	1	2	5	8	2	10	15	—	1	—
1902	—	1	2	7	1	—	1	10	—	—	4
1903	2	2	4	7	6	1	8	18	—	2	—
1904	—	1	2	2	7	1	8	17	—	1	1
1905	—	5	4	4	1	1	6	12	—	—	—
1906	—	4	—	4	—	—	11	15	—	—	1
1907	—	1	1	—	2	—	2	13	—	—	—
1908	—	2	1	6	7	—	5	10	—	—	—
1909	—	1	4	—	—	—	3	14	—	—	—
1910	—	3	—	1	1	1	1	9	—	—	1
1911	—	1	—	1	7	—	16	12	—	—	2
1912	—	5	—	—	—	—	4	15	—	—	—
1913	—	2	2	—	4	—	6	11	8	—	1

TABLE 26.

Factories and Workshops. Cow-keepers and Milk-sellers.

TOWNSHIP.	Mr. McKenzie.							Mr. Metcalfe.	
	Factories.	Workshops	Domestic Workshops	Total.	Defects Found.	Inspections Made.	Out-workers.	Cow-keepers.	Milk-sellers.
Agden	—	1	—	1	—	1	—	3	2
Ashley	—	3	2	5	—	3	—	26	15
Aston-by-Budworth	1	—	3	4	—	3	—	39	9
Baguley	—	7	2	9	—	10	—	18	2
Bexton	2	1	—	3	—	3	—	5	4
Bollington	—	2	—	2	—	2	—	10	6
Carrington	—	5	3	8	4	4	—	9	1
Dunham Massey	9	16	4	29	2	35	—	37	16
High Legh	1	4	3	8	—	9	—	44	12
Marthall	3	—	—	3	—	3	—	19	12
Mere	2	1	2	5	—	5	—	25	4
Millington	—	2	1	3	—	3	—	5	2
Mobberley	3	11	9	23	2	20	—	59	36
Northenden	6	22	37	65	—	75	1	13	9
Northern Etchells	—	4	3	7	—	12	—	13	7
Ollerton	—	2	2	4	—	4	—	12	9
Partington	3	5	3	11	1	15	—	9	3
Peover Inferior	1	2	—	3	—	3	—	7	3
Peover Superior	2	4	3	9	—	10	—	27	13
Pickmere	—	3	—	3	—	3	—	16	4
Plumbley	2	2	3	7	—	7	—	18	6
Ringway	1	1	—	2	—	2	—	27	9
Rostherne	—	—	5	5	—	4	—	8	4
Styal	1	5	2	8	—	7	—	17	12
Tabley Inferior	—	—	—	—	—	—	—	4	4
Tabley Superior	—	4	8	12	—	15	—	22	16
Tatton	—	—	1	1	—	1	—	1	—
Timperley	7	17	9	33	1	45	3	15	8
Toft	—	1	—	1	—	1	—	8	4
Warburton	1	1	3	5	—	4	—	8	2
Totals for 1912	45	126	108	279	10	309	4	523	234
	46	126	106	278	63	492	4		

TABLE 27.

CHESHIRE COUNTY COUNCIL.

Tabular Statement of Inspector of Nuisances for the Year ended
December 31st, 1913.

Bucklow Rural District.

Nature of Inspections Made.		A Number	B Number of Notices served.		C Result of Service of Notices.			
			Statu- tory.	Inform- al.	Notices compli- ed with.	Remain- ing in hand	Prosecutions. Insti- tuted.	Pend- ing.
1.	Dwelling Houses (general inspections) ...	343	160	241	384	19	...	...
2.	Cellar Dwellings	...	...	...	...	...	...	...
3.	Back-to-Back Houses ...	...	...	...	...	...	...	...
4.	Tents, Vans, Sheds, &c....	30	...	...	...	...	...	...
5.	Courts, Yards, Passages ...	3065	...	142	142	...	...	...
6.	Privy-Middens, Earth or Pail Closets ..	2648	23	173	186	10	...	...
7.	Cesspools ...	140	4	22	26	...	...	...
8.	House Drainage ...	1412	28	58	80	6	...	...
9.	Ditches, Watercourses, &c. ...	143	...	10	10	...	...	...
10.	Offensive Accumulations ..	32	...	7	7	...	...	...
11.	The keeping of Animals (P.H.A., 1875, S. 91 (3))	9	...	2	2	...	...	...
12.	Offensive Trades ...	...	...	...	...	...	...	...
13.	(a) Slaughterhouses (Public) ...	...	...	...	...	...	...	...
	" (Private) ...	98	...	4	4	...	...	...
	(b) Other Places where Food is produced or sold	242	...	...	...	...	...	...
14.	Piggeries ...	211	...	18	18	...	...	...
15.	(a) Dairies... ..	604	30	122 1008lime washing circul'rs	128	24	...	...
	(b) Cowsheds							
	(c) Milkshops							
16.	(a) Factories	45	...	...	...	...	...	...
	(b) Workshops	126	10	...	10	...	...	...
	(c) Workplaces	106	...	...	...	...	...	...
	(d) Outworkers' Premises	8	...	...	...	...	...	...
17.	Bakehouses (Overground) ...	34	...	7	7	...	...	...
	" (Underground)	...	...	...	...	...	...	...
18.	Common Lodging Houses ...	...	...	...	...	...	...	...
19.	Houses let in Lodgings ...	...	...	...	...	...	...	...
20.	Smoke Observations ...	35	...	...	...	...	...	...
21.	Canal Boats ...	75	...	...	...	...	...	...
22.	Infectious Disease Inquiries and Re-visits	319	13	...	13	...	...	...
23.	Miscellaneous ...	180	2	39	41	...	...	...
Totals		9905	270	1008 & 845	1045	59	...	...

(Signed) R. M. METCALFE.

TABLE 28.

Annual Report of the Medical Officer of Health for the year 1913, for the Rural District of Bucklow, on the administration of the Factory and Workshop Act, 1901, in connection with Factories, Workshops, Workplaces and Homework.

1.—INSPECTION.

Including Inspections made by Sanitary Inspectors or Inspectors of Nuisances.

Premises.			Inspections.	Number of Written Notices.	Prosecutions.
Factories	...	...	45	...	...
(Including Factory Laundries.)					
Workshops	...	...	156	10	...
(Including Workshop Laundries.)					
Workplaces	...	...	108	...	...
			—	—	—
Total	...	...	309	10	...
			—	—	—

2.—DEFECTS FOUND.

Particulars.	Found.	Number of Defects Remedied	Referred to H.M. Inspector.	Number of Prosecutions
<i>Nuisances under the Public Health Acts :—</i>				
Want of Cleanliness ...	10	10	...	...

3.—HOME WORK.

			Lists received from Employers. Lists.	Workmen.
Wearing Apparel—				
Making, &c.	...	...	4	8

4.—REGISTERED WORKSHOPS.

Bakehouses	...	...	...	...	15
Basket-makers	...	...	...	...	4
Blacksmiths	...	...	...	...	35
Corn-mills	...	...	...	...	12
Dressmakers	...	...	...	...	32
Laundries	...	...	...	...	76
Painters	...	...	...	...	6
Wheelwrights	...	...	...	...	18
Miscellaneous	...	...	...	...	36
Total number of Workshops on Register ...					234

5.—OTHER MATTERS.

Matters notified to H.M. Inspector of Factories :—

Fire Escape Certificate	...	...	...	...	1
Notified by H.M. Inspector	...	...	...	...	1
Reports (of Action taken) sent to H.M. Inspector	...	...	...	...	1
Occupation New Workshops	...	...	...	...	3

BUCKLOW RURAL DISTRICT.

Preliminary Memoranda.—The matter found on pages 9 to 15, inclusive, is placed there for convenience, to save repetition, but must be taken here as an integral part of this Report.

L.G.B. Tables.—Memorandum from P.M.O.—See *antea*, “Official Instructions.”

A.—Natural and Social Conditions of the District.

(1).—*Physical features, &c.*—The area remains unchanged, and comprises 30 Townships. See Tables 22, 23, and 26. Its physical features are conspicuous by their absence. Such as they are, they have been described in previous Reports.

(2).—*Population, Social Conditions, &c.*—The population has been estimated for 1913 from the known number of new houses erected. The District is rich in Public Institutions. They are (1) the Manchester Corporation's Sanatorium for Phthisis at Baguley, now being enlarged, (1913 figures, 43 officers and 122 patients); (2) the South Manchester Guardians' Cottage Homes at Styal, (52 officers, 510 children); (3) the David Lewis Epileptic Colony at Marthall, (71 officers and 275 patients); (4) the Manchester Consumption Hospital in Dunham Massey, (15 officers and 48 patients); and the Altrincham U.D. Infectious Diseases Hospital in Dunham Massey, (10 officers and 8 patients); giving a total of 191 officers and 963 inmates. Other inhabitants are estimated at 22455; there is therefore a gross population of 23609, and nett 22646. There is a large residential section of persons employed in, or connected with, Manchester; a large trading section; a large farming and agricultural section; a certain number of resident gentry; and a colony of workshop operatives at Broadheath.

I am not aware that there is any influence of any particular occupation on public health. The point does not arise. I have no information about poor-law relief, nor about hospital and other forms of gratuitous medical relief.

B.—Sanitary Circumstances of the District.

Water Supply.—See detailed statement on p. 109 of A.R. 1910; and comment on p. 80 of A.R. 1911.

The only change during 1913 was a small extension of main at Dunham Woodhouses, to reach 4 cottages and a farm.

A considerable part of Mobberley could be supplied by an extension of the mains of the Stockport Corporation from Wilmslow, that is, as far as engineering goes. Whether it would be financially possible is not known, but the question is to be considered in the near future. Mr. Metcalfe adds :—

“Water certificates were granted for 21 houses under the provisions of the Public Health (Water) Act 1878, Section 6. Where the water supply was from wells samples were submitted to the County Analyst, and a satisfactory report obtained before these houses were occupied or certificates granted. Where filtration was recommended by the Analyst, the usual practice of requiring the owner to provide a “Pasteur-Chamberland filter” for each house was adopted. Raingill’s Cottages and the adjoining houses in Henshall Lane, Dunham Massey, have now been provided with water from the new main of the North Cheshire Water Company.”

“Nine samples of water were submitted for analysis and one for bacteriological examination.”

“The question of a public water supply for the township of Mobberley has been reported upon and is now under consideration.”

“The water supply for the township of Carrington will be reported upon early in 1914.”

Rivers and Streams.—See same pages of same Reports. Sinderland Brook is much obstructed (by fallen trunks, &c.), and it is very desirable that it should be cleared. It is difficult to say whose duty this is; but probably negotiation might provide joint action by this Council, (which is willing,) the Altrincham U.D. Council, and the riparian owners. Mr. Metcalfe says:—

“Many inspections have been made of the rivers in the district, and several samples of the waters taken, although it was not considered necessary to submit them for analysis. There appeared to be less discoloration of the Bollin during the year than has been the case in recent years.”

Drainage and Sewerage.—The Special Committee, appointed a few years ago, to deal with certain particular difficulties, has gradually come to be a Standing Committee of the Council, with charge over an increasing number of works and schemes.

(a). *Timperley.*—These sewers, and the outfall at Dark Lane, form the oldest works in the District. They cannot be considered satisfactory; but by unremitting care and attention, just manage to escape condemnation. One complaint was received from the Mersey and Irwell Committee of a bad effluent, and the faults found on examination were remedied as far as possible.

(b). *Northenden.*—This is the next oldest. Growth of population has rendered it inadequate; and plans for enlarge-

ment and reconstruction have been sent to the L.G.B., and a local enquiry will follow in due course.

(c). *Dunham Massey*.—Disposal is by broad irrigation. So far the land is equal to the demand upon it, and the effluent is good.

(d). *Baguley*.—The scheme described a year ago is completed, and plans have been sent to the L.G.B., whose local enquiry is awaited.

(e). *Peover Superior*.—Much attention has been given to the admitted needs of the two hamlets of Parkgate and Peover Heath. Up to the time of writing no scheme has been adopted, though the difficulties are rather financial than engineering.

(f). *Styal*.—This is another of the “border line” cases, where *some* length of sewer, with proper outfall, is very desirable. Exactly how much may be arguable. As there is now a station here on the new loop line of the L. & N.W.Ry. Co., it seems probable that new houses will follow, some day; and the need will become more urgent. A scheme has been prepared, and is in existence; but the cost was so heavy that its consideration is adjourned indefinitely.

The existing drains in the old village were laid a long time ago by the land-owner, and run into the river Bollin.

(g). *Northen Etchells*.—Sewers are urgently needed in this Township, first for Stonepail, which touches the border of the Cheadle and Gatley U.D., and second for Moss Nook, Hey Head, and Heald Green. At the last named there is another new station, and building would go forward if there were sewers. This problem however presents other difficulties besides those of engineering and expense, (serious though these are,) and I have advised the Committee to lay the whole matter before the L.G.B. for advice. Under these circumstances it is not desirable to say more here.

(h). *Partington*.—The general question remains *in statu quo*. A blocked ditch has been cleared; which was no easy matter, as the block occurred in earthenware pipes buried beneath a large spoil-heap created by the excavation of the Ship Canal.

(i). *Mobberley*.—Parts of this Township would be greatly improved by having sewers. A scheme is gradually being evolved, under the usual difficulties of area to be served, engineering, and finance; and will I hope be ready for consideration during 1914.

The remainder of the District does not call for special mention.

Closet Accommodation.—The following figures are as close an estimate as is possible in the absence of a house-register of the District. Privies 1210; Pails, 654; Cesspools, 1000; Water-closets, 2672. There are no waste-water or hand-flushed closets. Conversions of privies into water-closets during year, 241.

House Drainage and Conversion of Privy Closets to Water Closets.—*A Record Year.*—“130 houses were completely re-
“drained during the year and amendments carried out to
“126 others. In all cases the water test was applied, and
“the drains proved to be sound and tight before being
“covered in. 565 lengths of drain were tested in this way.”

“249 privy-closets were abolished, and 241 water-closets
“and 8 pail-closets substituted. Dust-bins were provided
“to each house, in lieu of the 124 foul middens actually
“demolished. Many dry ash-pits were also abolished and
“dust-bins substituted.”

“All the houses in Timperley, Dunham Massey, and
“Northenden were visited, and the closet and ash-pit
“accommodation reported upon, and the information
“tabulated.”

“The work carried out under this heading during the
“year has been very heavy, and undoubtedly establishes a
“record. The figures will probably be found to compare
“favourably with any similar Rural District in the
“country.”—R. M. METCALFE.

Scavenging.—This remains as previously described. Movable ash-bins were provided in all the cases of conversion (see preceding para.)

Scavenging and Removal of Refuse.—“Dunham Massey,
“Timperley, and Northenden. The scavenging in North-
“enden has been carried out by contract, and in Dunham
“Massey and Timperley by the Council's own staff of
“workmen. The following is a return of the work done in
“each Township during the year :—

	Dunham.	Timperley.	Northenden.
“Houses Scavenged	5368	11459	8367
“Asp-pits emptied	337	774	262
“Dust-bins emptied	5828	9257	6952
“Pails emptied	440	1629	Nil
“Loads removed	846	1063	476

“Special reports were made during the year on the
“scavenging and disposal of refuse in the above Townships,
“and another horse purchased, and two more men employed
“with a view to increasing the efficiency of this department
“in Dunham Massey and Timperley. A weekly clearance
“of dust-bins has been commenced.”

“The report on Northenden was deferred for further consideration in 1914. The question of scavenging and disposal of refuse in this Township is becoming a very serious matter; there are practically no suitable places for tipping the refuse, and the provision of a destructor plant in the near future is inevitable. The present cost is unreasonable, as shown by the loads removed, and compared with the other Townships. It is important that this question be dealt with. A small area of Northen Etchells was scavenged by the Northenden Contractor, and the work carried out by day work.”

“A report on the scavenging of Mobberley was submitted and a system of refuse removal will probably be commenced at an early date.”—R. M. METCALFE.

Sanitary Inspections of District.—Table 27, prepared by the County M.O.H., and filled up by Mr. Metcalfe, gives the figures required by Art. XX., (16), of the General Order.

It may perhaps be convenient to group together here certain other miscellaneous figures, for easy reference; thus:

Art. V. Housing Regulations.	Number of Dairies	...	...	...	228
	„ Cowsheds	...	...	...	290
	„ Milkshops	...	...	...	6
	„ Slaughter-houses	...	...	...	16
	„ Bakehouses	...	...	...	15
	„ Dry Ash-pits	...	...	...	700
	„ Dust-bins	...	...	...	1175
	„ of new houses built	...	...	...	21
	„ inspected under s. 17, Act of 1909	...	...	...	173
	„ found unfit	...	...	...	8
	„ of representations to Local Authority	...	...	...	8
	„ of closing orders made	...	...	...	8
	„ where defects remedied without closing order	...	...	...	244
	Number of within limits of rent of s. 14	...	...	...	2992
	„ of notices served on such houses	...	...	...	112
	„ closed	...	...	...	nil
	„ of back-to-back houses	...	...	...	nil
	„ of cellar dwellings	...	...	...	nil

Mr. Metcalfe devotes his whole time to the duties of Inspector; and I do not see that I can give an account of his work (XIX. (c).) better than by incorporating his report with my own, as and where it can be suitably done.

Special Premises and Occupations.—There are none in this District; (lodging-houses, cellar-dwellings, offensive trades, &c.)

Schools.—The following were closed as shewn :—

Jan. 15—Feb. 15	Dunham Massey (St. Alban's)	whooping cough
Jan. 24—Feb. 16	Timperley C.E. Infants	... ditto
Feb. 7—Feb. 22	Partington ...	... influenza
Feb. 27—Mch. 14	Baguley ...	... whooping cough
Mch. 17—Apr. 21	Rostherne ...	... measles
Apr. 14—May 16	Tabley Inferior	... whooping cough
June 18—July 12	Bollington ...	... measles
June 10—June 21	Partington...	... whooping cough
Nov. 27—Dec. 13	Warburton...	... mumps

In consequence of a small epidemic of diphtheria at Ashley, the school was inspected with unusual thoroughness by myself and the County M.O.H. I was surprised and disappointed at the inadequate and defective sanitary arrangements (closets, &c.) found. In consequence of this I made a special inspection of every school in the District; and I found that my laudatory paragraph of last year could be applied only to Council Schools. Defects were found, some serious, at all the "Non-Provided" Schools (except one). Notices were issued by the Council, requiring water-closets in all cases where sewers existed, and movable pails where there were no sewers, so as to get rid of all privies; and the provision of ash-bins where required. In most cases undertakings have been given to carry out the work during 1914.

Food. (a). Milk Supply.—Inspections of Dairies and Cowsheds have been carried out in the usual systematic fashion by Mr. Metcalfe; but I have not felt it necessary to accompany him this year. The majority of the sheds are now fairly satisfactory in structure; more attention has been given therefore to improving the standard of general cleanliness, of both premises and cattle. Notices, formal or informal, have been served as required. Two new cowsheds were built during the year; and several old ones improved.

Tuberculous milk was discovered (by examination in Manchester) in the case of 6 cows, on 5 farms; two in Mobberley, one each in Plumbley, Peover Superior, and Styal. Two cows, on one farm, in Mobberley, condemned by Manchester, were afterwards reported harmless by the Cheshire Authorities; and the matter, which is a very serious one for the farmer, is still being enquired into. The cases were all dealt with by the Police.

This appears to be the place to draw attention to the fact that young calves are frequently crowded into small pens, which are often in a condition of filth which is abominable. Regulations are required to empower Sanitary Authorities to deal with all bovine animals, instead of milch cows only; the latter being,

rightly or wrongly, the limit imposed by many Authorities on their officers. And when definite rules and regulations exist, the officers ought to be able to enforce them by legal process, without the formality of carrying every trifling matter to the Authority for special permission to act.

Mr. Metcalfe adds :—" There has been much improvement in the structural condition of cowsheds during the past few years, and this leaves more time for me to point out to the tenants the advantages of more fresh air and cleanliness. Special attention was given to the cleanliness of cows, milk vessels, milkers, and the methods of carrying on the milk business generally."

"There is here room for improvement, some of the persons concerned advance very slowly. Many of them have still the opinion that to have sheds hot and stuffy is the right and only way to get the best results from the cow. It is here, and in the neglect to devote a few minutes each day to the "grooming of the cows" that the chief faults are. The attention of the Council will be drawn to any defaulters during 1914 and authority to take legal proceedings will be asked for. I consider that quite enough talking and explaining has been done, and that legal action is the only means left to deal with some of them."

"They are, however, only a minority, and I am glad to report that on no occasion during the year has it been necessary to draw attention to any neglect with regard to the cleanliness of milk vessels and cooling apparatus."

"If the retailers of milk gave as much attention to the cleanliness of their cans, carts, assistants, and the methods of handling milk, as the majority of farmers do, there would be very little shouting about 'dirty milk.'"

"The figures as to number of cowkeepers and milk sellers, etc., in the district remain as last year."

"Statutory notices were served where necessary, and the usual limewashing notices (1008) sent out in May and October."

Anthrax.—"Two cases were reported in Tabley Superior.

"These were dealt with by the County Police and all necessary disinfection carried out."

Food. (b). Other Foods.—Mr. Metcalfe paid 98 visits to slaughter-houses, and 242 to butchers' shops, fish carts, meat carts, &c.

There were no seizures or surrenders ; and no complaints.

Beyond meat, fish, game, vegetables, &c., it does not appear necessary to push food-inspection in this District.

Food. (c). Sale of Food and Drugs Act.—In the hands of the County Council.

Housing.—(XIX. (14) (k).)—Mr. Metcalfe reports as follows :—

Housing and Town Planning Act 1909.—"The work under this Act was proceeded with, and 173 houses inspected. Eight representations were made to the Council in respect of eight houses unfit for human habitation, and closing orders issued. Defects were remedied without closing orders being made at 244 houses. The usual defects were bad floors and staircases, dampness, defective ceilings and plastering, dilapidated fire-places, bad paving in yards and wash-houses, old foul sinks, light and ventilation, windows too small and could not be opened, defective drainage, leaking untrapped unventilated and insanitary privies. No cases of overcrowding were discovered, but in a few cases it may be said to have been "a very near thing," even when calculated on the low common lodging-house standard of 300 cubic feet per head. The food store is usually found to be "that very badly ventilated place under the stairs," or on the scullery shelves over the wash-boiler. The structural defects were dealt with by the service of notices upon the owners or agents under the Public Health Acts, or by the issue of informal notices for matters not so dealt with, or by meeting the owner or agent at the property and pointing out the defects to them. There was only one case where a house was occupied by more than one family; it was a six-room cottage with two married couples, but there were no children."

"On several occasions the question of housing accommodation in the District was before the Health Committee, but for the want of definite information on the subject there was no decision come to, and it was still under consideration at the close of the year."

Visits with Medical Officers.—"Many visits were made with Dr. Garstang, but no regular rounds arranged as in previous years. This was due to the fact that the "round of visits" were not necessary, but such inspections were carried out with Dr. Garstang when other matters arose in the various Townships."

"Several visits were also made with Dr. Meredith Young, the County Medical Officer, in connection with diphtheria cases in Ashley, the outbreak of typhoid fever at the County High School for Girls, Dunham Massey, and other matters of importance."

Legal Proceedings.—"It was not found necessary to take legal proceedings against anyone with regard to matters coming under this department. This is very satisfactory, considering the large amount of work carried out."

An exhaustive formal enquiry is (at the time of writing) being carried out by the Health Committee, whereby the exact present circumstances and future needs of each individual Township will be ascertained. Circulars have been sent to Overseers, Chairmen of Parish Councils and Parish Meetings, &c. It is hoped to have the information complete during March, 1914; and it will be summarised and published in the next Annual Report.

The statistical and other information required by Art. V. of the Housing Regulations 1910 will be found in the immediately preceding pages. This is a District, as often stated before, where building bye-laws have always been enforced, and where supervision over construction has been close and continuous; especially in the matters of water-testing drains, and so on.

Smoke Nuisances.—"This question received special attention, and 35 observations (each of one hour's duration) were made, and charts prepared, showing the result of each observation. There was very little improvement (if any) with regard to the nuisance from the chimneys of the Ammonia Soda Co., Ltd., Plumbley, and this appears to be a case for further legal proceedings. It will again be reported upon early in 1914."

"Towards the end of the year complaints were received from Carrington and Partington as to nuisance from the emission of black smoke, and these are now receiving attention."—R.M.M.

Workshops, &c.—Mr. McKenzie submits the following Report on work done under the Factory and Workshops Act 1901 :—

"Regular rounds of inspections under the provisions of the above Act have been made throughout the District, various parts being visited in company with the Medical Officer of Health. The register has again been revised and brought up to date. At the close of the year the total number equals 279, 45 Factories, 126 Workshops, and 108 Workplaces, against 278 for 1912. 309 Inspections were made; and Formal Notices were served by order of the Council in 10 cases of cleansing and lime-washing premises, in the Townships of Carrington, Dunham Massey, Mobberley, Partington, and Timperley."

"There are four outworkers in the District, three in Timperley and one in Northenden, all working for firms in Manchester. A complaint notice was received from H.M. Chief Inspector of Factories on July 28th, as to

“cleansing ceiling of a bake-house. This was attended to forthwith ; also three cases of newly-occupied Workshops in Northenden, Dunham Massey, and Tabley Superior. A certificate (of satisfactory provision of means of escape in case of fire) was granted on February 19th to a new factory.”

Perhaps it will be convenient to mention here the other matters on which Mr. McKenzie reports.

Surveyor's Annual Report, 1913.

“During the year comparatively few new buildings have been erected. This condition of affairs is common in other surrounding Districts. 11 certificates of completion under the Building Bye-laws were granted for 21 houses which are now occupied. Footings and damp-proof courses for 30 new buildings have been examined and found satisfactory. 12 connections to main sewers have been inspected and found in order. All drains to new houses throughout the Council's District have been water tested, and the 50 sets thus inspected were found sound and water-tight. The following licenses have been granted by the Council during the year :—

“Hackney Carriage Licenses (Timperley)	...	5
“ ” ” Drivers ” ”	...	5
“Tram Car Licenses (Dunham and Timperley)	...	31
“ ” ” Drivers and Conductors	...	53
“Carbide of Calcium Storage Licenses (General)	...	8
“Petrol Storage Licenses (General)	...	12
“Game Licenses (General)	...	1

Repair of Private Streets.—“The following Private Streets have been formed and made up either under provisions of Private Street Works Act 1892, or by agreement amongst the owners :—

“164 yards, Park Avenue, Timperley.

“133 yards, St. Andrew's Avenue, Timperley.”

Public Lighting.—“The Public Lighting of the Streets within Timperley and Northenden still continues in operation. During the winter season experimental incandescent burners have been fitted to the Timperley lamps. These are still under observation.”

Flushing Sewers.—“The main sewers in Timperley, Northenden and Dunham Massey, have been regularly gauged and flushed. A series of special vent shafts have been erected where complaints were received as to offensive manhole covers, especially those in Dunham Town.”

Dark Lane Tanks (Timperley).—"Plans are now under preparation for a considerable extension of tanks and filters at these works. This improvement has been necessitated to deal more adequately with wet weather flow."

Effluents.—"During the year complaints have been received of samples of effluents taken from the Sewage Disposal Works at Northenden and Timperley."

Building Plans Committee.—"During the year 135 sets of plans have been submitted to the Council for their approval, and two letters with respect to building matters have been received and dealt with. Of the plans submitted, approval was granted to 92 sets on their first appearance, 43 sets were returned for amendment and subsequently passed. Two sets of plans were not approved. The various buildings of which plans were approved, are as follows :—

" Alterations and additions to dwelling houses	...	47
" Alterations and additions to Cowsheds	...	3
" Piggeries		2
" Dwelling Houses		52
" Stables (other than farm buildings)	...	3
" New Golf Club		1
" New Roads and Sewers		2
" New School		1
" New Mission Rooms		2
" Miscellaneous		16

Canal Boats.—"During the year 27 visits have been paid and 71 inspections made of Canal Boats. A formal notice was sent to one owner, *re* the dirty condition of the cabins of his boat on September 25th. The boats were registered to carry 258 persons, and 150 were found on board, *viz.* : 115 men and 35 women. No defects were noticed. The general cleanliness and repair of the boats inspected was satisfactory. The emptying of bilge water on manure boats is still closely watched. On inspection 10 boats were found carrying nightsoil and manure. No case of infectious disease was met with during the year."

C.—Sanitary Administration of the District.

1. *Staff.*—Besides myself there have been up to the present only two officers engaged in sanitary work. The division of duties between them will be seen from their reports, which are printed above. As before, I have edited and condensed these reports, to save cost of printing. And, as I have often said, I do not know any Rural District where the work is better done.

Nevertheless we all suffer from one difficulty which becomes more onerous each year, owing to additional duties being constantly created, and placed upon us; I mean the impossibility of doing more and more clerical work in the office, and *at the same time* giving more and more time to practical work in the District. The Council has recognised this in the case of Mr. McKenzie by appointing Mr. J. W. Moore as Assistant Surveyor, who will take up his duties in January 1914. In Mr. Metcalfe's case it is obvious that more out-door work could be done, including inspections under the H.T.P. Act, if he were relieved from book-keeping by the appointment of a clerk. It is useless to allege that the pressure is only temporary and will be relieved; there is every indication that it will be permanent, and will increase.

2. *Hospital*.—There is ample accommodation in the Hospitals of the Manchester Corporation, which is under agreement with the Joint Hospital Board, of which this District is the largest member. All details are given in a Table at the end of the Volume. We have nothing to do with hospital administration.

3. *Local or Adoptive Acts*.—There are no local Acts. The Adoptive Acts are the Infectious Diseases Prevention Act; the P.H.A.A.A. 1890, Part III.; the P.H.A.A.A. 1907, Sections 15, 16, 23, 52 to 75, whole District; 34 to 46 Dunham Massey, Northenden, and Timperley only. The "administration" is part of the regular work of the officers.

4. *Chemical and Bacteriological Work*.—The chemical work is done by the County Analyst. 9 Samples of water were submitted to him. The bacteriological work is done at Professor Delépine's Laboratory. The specimens submitted to him were taken from 17 cases of diphtheria, 9 of enteric fever, and 4 of tuberculosis. 5 diphtheria results were positive; 2 enteric; and 1 tuberculosis.

D.—Prevalence of and Control over Acute Infectious Diseases.—Table 17 shows the prevalence; and Table 24 enables a comparison to be made with previous years. There is nothing extraordinary in any of the figures.

Diphtheria.—16 cases, no deaths. All removed to hospital, except 4 where there were good reasons for their remaining at home. 1 case occurred in Dunham Massey in January, and 2 (in one house) in October. 1 case occurred in Northenden in October. In Timperley there were single cases in May, September, and November. All these were sporadic. The remainder occurred in Ashley, partially in connection with the School. There were 2 in January, 3 in March, 3 in April, and 1 (suspected carrier) in May. There may have been more.

The fact that 9 cases were spread over 5 months is sufficient excuse for a delayed recognition of the epidemicity. On April 21st the County M.O.H. visited the District, and we examined a number of suspected children, and caused swabs to be sent for bacteriological examination. In May there was an epidemic of fright in the Township, which was slow in subsiding. The school was not closed.

Erysipelas.—6 cases, of no importance.

Scarlet Fever.—67 cases; 52 removed to hospital; 2 deaths, (both in hospital). 21 Townships had no cases, (Table 22); and the cases in Dunham Massey (3), Timperley (5), Mere (2), Ollerton (1), High Legh (5), Styal (4), Baguley (3), and Carrington (1), were sporadic, and not worth describing in detail. The 43 cases that occurred at Northenden are believed to form part of a great epidemic which raged at the same time in the City of Manchester. 6 occurred in January, 1 in February, 3 in March, 1 in July, 2 in August, 4 in September, 3 in October, 16 in November, and 7 in December. Except in November therefore there was little cause for anxiety.

Enteric Fever.—2 cases; one in Northenden in May, and 1 in Mobberley in November. The former was removed to hospital; the latter was one of a series in connection with the County High School for Girls. The school building stands on the boundary between Bowdon and Bucklow, but just in the latter. Hence I was involved when the County M.O.H. held an enquiry at the School at the request of the Managers. Numerous cases occurred in the Urban Districts of Altrincham, Bowdon, and Hale; but it will be sufficient for me to state that the cause was found to be one which did not in any way concern the Bucklow District.

Whooping Cough.—(4 deaths), *Measles* (2 deaths) and *Mumps*. Little is known of these, save from information received from schools. Closures have been enumerated in a previous part of this Report. The deaths from whooping-cough were 3 in Dunham Massey and 1 in Timperley; those from measles 1 in Dunham Massey and 1 in Ashley.

General.—In reply then to the general queries under D, the sources of infection were generally extraneous; the method of spread was by personal contact only; the administrative action was prompt removal to hospital or effective house isolation, and thorough disinfection. School attendance, water and milk supplies, and other foods, do not enter into the question at all. Bacteriological aids to diagnosis are used (see above). Contacts are enquired for, when a case is first investigated, and if necessary are kept under medical observation for a time. We have experienced no special difficulties.

Disinfection.—"77 houses and 7 schools have been disinfected, "and the clothing and bedding from all infected houses "was removed and disinfected in the steam disinfector. "The rooms have been disinfected either by fumigation "with "Formic aldehyde" or spraying with "Formalin," "and are afterwards stripped and distempered. Disinfection "is carried out in all cases of phthisis when required, and "disinfectants supplied."—R. M. METCALFE.

Non-notifiable infectious diseases are on the contrary always associated with schools, and generally occur in groups, or small local epidemics. Reference to the list of schools closed (given above) will afford all information as to local incidence. In the case of measles, definite and effective control can be exercised by daily domiciliary visits by a temporary lady Inspector. The duration of the epidemic is frequently shortened; and the mortality is always lowered. In the case of whooping-cough I have not yet discovered any means of control. Chicken-pox, mumps, and influenza generally receive no notice.

E.—Prevalence of, and Control over, Tuberculosis.—23 cases of phthisis were carried forward from 1912; 9 of which were either convalescent or for other satisfactory reason were not in need of supervision. I have certainly been surprised to find 28 further notifications in 1913, besides 15 of other forms of tuberculosis. This makes a total of 66, (see Table 2, p. 11.) 14 cases have died, 4 have left the District, and 15 are not in need of supervision. This leaves on the active list 33 cases, (24 phthisis, 9 other forms of tuberculosis.) 9 phthisis cases are in Dunham Massey, 6 in Timperley, 1 in Baguley, 4 in Northenden, 1 in Northen Etchells, 1 in Styal, 1 in High Legh, 1 in Warburton. The other cases are lupus of face (2), cervical glands (3), and various bones (4). 2 are in Dunham Massey, 1 in Timperley, 1 in Northen Etchells, 1 in Ollerton, 1 in Mere, 1 in Rostherne, 2 in Partington. There are still 18 Townships without a case of any kind; whilst 7 have only 1 case each, and 2 only 2 cases each.

All cases are under my personal observation; see p. 12. Cards of instructions are supplied, also disinfectants if asked for. Every case is under medical supervision. 10 cases went to Sanatoria, see p. 11. The medical attendants are usually careful to watch for further cases; nothing is done by the Health Department (*i.e.* myself) for obvious reasons. A County Tuberculosis Officer has been appointed, and a scheme is in process of evolution. How far a District Council or its officers will "participate" in such scheme remains for the future to disclose. The action now being taken promises to stamp out this disease within a few years so far as the Bucklow Rural District is concerned.

F.—Investigation of other Diseases.—There are no influences threatening the health of the District. There is no excessive prevalence of any one disease, or group of diseases. Rheumatic fever is absent. Pneumonia (14) and influenza (1) are not excessive. Rickets has never been mentioned. Diarrhœa (6) is about the average, and is dependent solely on ignorance. There was no food poisoning.

G.—Means for preventing Mortality in Child-birth and in Infancy.—The Midwives Act is administered by the County Council. The Notification of Births Act has not been adopted. There is no ophthalmia neonatorum. The infant mortality figure is 91, and the average for the last 6 years is 80. (See Table 16).

H.—Vital Statistics of the District.—These have been carefully prepared in accordance with instructions, and a few additional Tables added.

Births.—See Table 20 for details. Table 16 shows that the fall in the Rate is still going on; and last year's Rate has come down to the unprecedentedly low figure of 16·5; whilst the average of the preceding 6 years is 19·8 only.

Deaths.—Tables 18 and 21 give various details. They appear to be of an ordinary character, and require little further comment. It may be noted that 2 deaths from measles, 2 from scarlet fever, 4 from whooping-cough, and 6 from diarrhœa, are the only representatives of the old “zymotic” class, and give a Rate of 0·6. Table 19 further elaborates the particulars of the infantile deaths. Half of these would probably be considered unavoidable.

Miscellaneous.—Tables 22 and 23 are mainly of local interest, as they apportion various figures to the individual Townships. Tables 24 and 25 are always peculiarly interesting to myself, and contain much valuable information as to the past history of the District in a form in which the understanding eye can see at a glance the equivalent of many pages of description. Tables 26, 27, and 28 bear witness to the amount of daily work which Mr. McKenzie and Mr. Metcalfe get through.

Printing and Distribution of Report.—This is carried out as suggested. At the risk of apparently tedious repetition I would inform the members of the Council that every word of this Report is demanded by the L.G.B. It is not in my power, nor in theirs, to interfere. The Council retains the right to appoint the M.O.H., and (under conditions) to dismiss him, also to pay his salary (recovering half from the C.C.), but in every other respect the M.O.H. is rapidly becoming the direct servant of the L.G.B. It has been very interesting to me to watch the

change taking place, mainly within the last 5 years, and the contrast between the Health Department of to-day and what it was even 10 years ago is stupendous. Unfortunately the L.G.B. has forgotten to provide the clerical assistance which has become necessary, or to increase the remuneration in proportion to the work. The Council has not been ungenerous to me ; yet the fact remains that my salary for 1913 is less than that paid to my predecessor in 1877, though I do a hundred or more times as much work as he did.

T. W. H. GARSTANG, D.P.H.

February 23rd, 1914.



Biddulph Urban District.

ANNUAL REPORT OF MEDICAL OFFICER OF HEALTH FOR 1913.

Population at Census 1891, 5,290.

„ „ „ 1901, 6,247. Increase 957.

„ „ „ 1911, 7,425. Increase 1,178.

Estimated Population, 1913, 7,660.

Area of District in Acres (exclusive of area covered by water) $5,057 - 30 = 5,027$.

Number of Inhabited Houses, 1,516. } At Census of
Average Number of Persons per House, 4.9. } 1911.

Institutions within the District receiving sick and infirm persons from outside the District: None.

Institutions outside the District receiving sick and infirm persons from the District: Union Workhouse, at Leek. North Stafford Infirmary. Congleton Cottage Hospital. Joint Infectious Diseases Hospital, at West Heath, Congleton.

Other Institutions, the deaths in which have been distributed among the several localities in the District: None.

Birth Rate per 1,000 living, 27.9.

Death Rate per 1,000 living, 13.4.

Deaths under one year in proportion to 1,000 Births 136.

Each birth or death contributes to the Rate 0.13055.

TABLE 29.

(Local Government Board Table I.)

Vital Statistics of Whole District during 1913 and Previous Years.

Name of District, BIDDULPH (URBAN).

YEAR.	Population estimated to Middle of each Year.	BIRTHS.			TOTAL DEATHS REGISTERED IN THE DISTRICT.		TRANSFER-ABLE DEATHS.		NETT DEATHS BELONGING TO THE DISTRICT.			
		Uncorrected Number.	Nett.		Number.	Rate.	of Non-residents registered in the District.	of Residents not registered in the District.	Under 1 Year of Age.		At all Ages.	
			Number.	Rate.					Number.	Rate per 1000 Nett Births.	Number.	Rate.
1908	7071	254	...	35·9	86	...	...	3	22	87	89	12·6
1909	7189	251	...	34·9	120	...	...	1	32	127	121	16·8
1910	7307	256	...	35·0	79	...	1	4	25	98	82	11·2
1911	7425	205	...	27·9	93	...	...	9	30	146	102	13·7
1912	7543	226	...	30·0	103	...	1	5	25	110	107	14·2
1913	7660	214	...	27·9	97	...	1	8	29	136	104	13·4

TABLE 30.—(Local Government Board Table II.)
Cases of Infectious Disease notified during the Year 1913.
Name of District, BIDDULPH (URBAN).

NOTIFIABLE DISEASE.	NUMBER OF CASES NOTIFIED.							TOTAL CASES REMOVED TO HOSPITAL.
	At Ages—Years.							
	At all Ages.	Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 45.	45 to 65.	
Small-pox ...	..	..	..	..	..	..	..	..
Cholera (C) Plague (P) ...	..	..	..	..	..	..	..	..
Diphtheria (including Membranous Croup) ...	78	..	18	43	9	7	1	72
Erysipelas ...	..	..	..	..	..	..	..	..
Scarlet Fever ...	14	1	5	6	2	..	..	11
Typhus Fever ...	..	..	..	..	..	..	..	..
Enteric Fever ...	..	..	..	..	..	..	..	..
Relapsing Fever (R) ...	..	..	..	..	..	..	..	..
Continued Fever (C) ...	..	..	..	..	..	..	..	..
Puerperal Fever ...	..	..	..	..	..	..	..	..
Cerebro-Spinal Meningitis ...	..	..	..	..	..	..	..	..
Poliomyelitis ...	..	..	..	..	..	..	..	..
Pulmonary Tuberculosis ...	13	..	..	4	4	4	..	1
Other forms of Tuberculosis ...	2	..	..	1	1	..	..	..
Totals ...	107	1	23	54	16	11	1	83

TABLE 31.

(Local Government Board Table III.)

Causes of, and Ages at, Death during the Year 1913.

Name of District, BIDDULPH (URBAN).

CAUSES OF DEATH.	Nett Deaths at the subjoined ages of "Residents" whether occurring within or without the District.									Total Deaths whether of "Residents" or "non-Residents" in Institutions in the District.
	All Ages.	Under 1 year.	1 & under 2 years.	2 & under 5 years.	5 & under 15 years.	15 & under 25 years.	25 & under 45 years.	45 & under 65 years.	65 & up- wards.	
All Causes { Certified ...	103	29	7	5	1	7	5	17	32	..
{ Uncertified ..	1	..	..	..	..	..	..	1	..	..
Enteric Fever	..	..	..	..	..	..	..	..	..	..
Small-pox	..	..	..	..	..	..	..	..	..	..
Measles	2	..	2	..	..	..	..	..	..	..
Scarlet Fever	..	..	..	..	..	..	..	..	..	..
Whooping Cough ...	6	3	2	1	..	..	..	..	..	..
Diphtheria and Croup	3	..	..	2	1	..	..	..	..	..
Influenza	1	..	..	..	..	..	..	..	1	..
Erysipelas	..	..	..	..	..	..	..	..	..	..
Phthisis	..	..	..	..	..	..	..	..	..	..
(Pulmonary Tuberculosis)	8	..	..	..	..	5	1	2	..	..
Tuberculous Meningitis	..	..	..	..	..	..	..	..	..	..
Other Tuberculous Diseases	..	..	..	..	..	..	..	..	..	..
Cancer, Malignant Disease	8	..	..	..	..	..	1	2	5	..
Rheumatic Fever...	2	..	..	..	..	1	..	1	..	..
Meningitis... ..	1	..	..	1	..	..	..	..	..	..
Organic Heart Disease	8	..	..	..	..	..	1	6	1	..
Bronchitis	5	1	1	..	..	..	..	1	2	..
Pneumonia (all forms)	7	2	1	..	..	..	..	2	2	..
Other Diseases of Respira- tory Organs	..	..	..	..	..	..	..	..	..	..
Diarrhoea and Enteritis	3	2	..	..	..	..	..	..	1	..
Appendicitis and Typhlitis	..	..	..	..	..	..	..	..	..	..
Cirrhosis of Liver ...	..	..	..	..	..	..	..	..	..	..
Alcoholism	..	..	..	..	..	..	..	..	..	..
Nephritis & Bright's Disease	1	..	..	..	..	..	1	..	..	..
Puerperal Fever	..	..	..	..	..	..	..	..	..	..
Other Accidents and Dis- eases of Pregnancy and Parturition	1	..	..	..	..	..	1	..	..	..
Congenital Debility and Malformation, includ- ing Premature Birth ...	17	17	..	..	..	..	..	..	..	..
Violent Deaths, excluding Suicide	4	1	..	..	..	..	..	1	2	..
Suicide	..	..	..	..	..	..	..	..	..	..
Other Defined Diseases	27	3	1	1	..	1	..	3	18	..
Diseases ill-defined or un- known	..	..	..	..	..	..	..	..	..	..
Totals	104	29	7	5	1	7	5	18	32	..
Sub-Entries—included in above figures.	..	..	..	..	..	..	..	..	..	..
Cerebro-spinal Meningitis...	1	..	..	1	..	..	..	..	..	..
Polio-myelitis	1	1	..	..	..	..	..	..	..	..

TABLE 32.

(Local Government Board Table IV.)

Infant Mortality.

1913. Nett Deaths from stated causes at various Ages under 1 Year of Age.

Name of District, BIDDULPH (URBAN).

CAUSE OF DEATH.		Under 1 Week.	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total under 4 Weeks.	4 Weeks and under 3 Months.	3 Months and under 6 Months.	6 Months and under 9 Months.	9 Months and under 12 Months.	Total Deaths under 1 Year.
All Causes.	{ Certified ... Uncertified ...	7 ...	3 ...	1 ...	2 ...	13 ...	2 ...	8 ...	4 ...	2 ...	29 0
{ Small-pox	...	...	...	...	...	...	...	...	...	...	...
{ Chicken-pox	...	...	...	...	...	...	...	...	...	...	...
{ Measles	...	...	...	...	...	...	...	...	...	...	...
{ Scarlet Fever	...	...	...	...	...	...	...	...	...	...	...
{ Whooping Cough	...	...	...	...	...	...	1	2	...	...	3
{ Diphtheria and Croup	...	...	...	...	...	...	...	...	...	...	...
{ Erysipelas	...	...	...	...	...	...	...	...	...	...	...
{ Tuberculous Meningitis	...	...	...	...	...	...	...	...	...	...	...
{ Abdominal Tuberculosis	...	...	...	...	...	...	...	...	...	...	...
{ Other Tuberculous Diseases	...	...	...	...	...	...	...	...	...	...	...
{ Meningitis (not Tuberculous)	...	...	...	...	...	...	...	...	...	...	...
{ Convulsions	...	...	...	...	...	...	1	...	...	...	1
{ Laryngitis	...	...	...	...	...	...	...	...	...	...	...
{ Bronchitis	...	...	...	...	...	...	...	1	...	...	1
{ Pneumonia (all forms)	...	...	...	...	...	...	...	1	1	...	2
{ Diarrhoea	...	...	...	...	...	...	1	...	...	1	2
{ Enteritis	...	...	...	...	...	...	...	...	...	...	...
{ Gastritis	...	...	...	...	...	1	...	...	...	...	1
{ Syphilis	...	...	...	...	...	...	...	...	...	...	...
{ Rickets	...	...	...	...	...	...	...	...	...	...	...
{ Suffocation, overlying	...	...	...	1	1	...	...	...	...	...	1
{ Injury at Birth	...	...	...	...	...	...	...	...	...	...	...
{ Atelectasis	...	...	...	...	...	...	...	...	...	...	...
{ Congenital Malformations	...	1	...	...	...	1	...	...	...	...	1
{ Premature Birth	...	2	3	1	...	6	1	...	...	...	7
{ Atrophy, Debility, & Marasmus	...	4	...	...	1	5	1	3	...	...	9
{ Other Causes	...	...	...	...	...	...	1	...	...	...	1
Totals	..	7	3	1	2	13	2	8	4	2	29

 Nett Births in the year { legitimate 201
 { illegitimate 13

 Nett Deaths in the year of { legitimate infants 27
 { illegitimate infants 2

TABLE 33.

Births, 1913.

	M.	F.	Total.	Rate.	Of which Illegitimate.		
					M.	F.	Total.
1st Quarter	33	33	66	35·0	2	1	3
2nd ,,	24	24	48	25·1	1	2	3
3rd ,,	24	30	54	28·0	2	0	2
4th ,,	17	29	46	23·8	3	2	5
Total ...	98	116	214	27·9	8.	5	13

TABLE 34.

Shewing Deaths, Death-rates, Deaths from Special Diseases, and Old Age and Infantile Deaths, in the Four Quarters of the Year, 1913.

	Total Deaths.	Rate.	DEATHS.		Cerebro-spinal Meningitis.	Diphtheria.	Measles.	Whooping Cough.	Diarrhoea.	Phthisis.	DEATHS FROM SPECIAL DISEASES.	
			At 65 Years and upwards.	Under One Year.							Total.	Rate.
1st Quarter	29	15.4	9	8	0	1	2	5	0	1	9	4.8
2nd „	25	13.1	7	9	0	0	0	0	1	2	3	1.6
3rd „	25	13.0	9	6	1	0	0	1	0	2	4	2.1
4th „	25	13.0	7	6	0	2	0	0	2	3	7	3.6
Total ...	104	13.4	32	29	1	3	2	6	3	8	23	2.9

TABLE 35.

Notifications of Infectious Diseases.

Year.	Small-pox.	Scarlet fever.	Diphtheria.	Enteric Fever.	Erysipela	Puerperal Fever.	Phthisis.	Other Tuber- culosis.	TOTAL.
1890	—	12	2	3	2	1	—	—	20
1891	—	5	1	5	2	2	—	—	15
1892	—	18	3	3	—	—	—	—	24
1893	—	11	2	—	2	—	—	—	15
1894	18	12	4	3	2	—	—	—	39
1895	—	13	9	1	—	2	—	—	25
1896	—	38	4	3	4	6	—	—	55
1897	—	11	1	—	5	—	—	—	17
1898	—	1	3	2	1	—	—	—	7
1899	—	110	—	5	3	—	—	—	118
1900	—	22	1	3	—	—	—	—	26
1901	—	—	15	2	3	1	—	—	21
1902	—	—	1	11	1	—	—	—	13
1903	—	5	23	—	—	—	—	—	28
1904	—	14	30	3	2	1	—	—	50
1905	—	11	17	—	1	1	—	—	30
1906	—	12	28	5	2	—	—	—	47
1907	—	4	17	—	1	—	—	—	22
1908	—	4	26	—	—	—	—	—	30
1909	—	26	11	—	4	—	—	—	41
1910	—	15	2	4	—	—	—	—	21
1911	—	37	7	12	1	—	—	—	57
1912	—	28	20	3	5	1	14	—	71
1913	18	14	78	—	—	—	13	2	107

TABLE 36.

Deaths from Special Diseases.

Year.	Small-pox.	Cerebro-spinal Meningitis.	Scarlet Fever.	Diphtheria.	Enteric Fever.	Measles.	Whooping-cough.	Diarrhoea.	Phthisis.	Other Tuberculosis.	Puerperal Fever.	Erysipelas.	TOTAL.
1890	—	—	1	—	—	—	—	—	6	—	1	—	8
1891	—	—	—	—	—	1	11	1	8	—	2	—	23
1892	—	—	2	—	—	—	—	1	2	—	—	—	5
1893	—	—	1	2	—	4	—	7	6	—	2	—	22
1894	1	—	—	3	1	—	1	—	2	—	1	—	9
1895	—	—	—	4	1	2	5	7	6	—	2	—	27
1896	—	—	3	4	—	3	2	2	9	—	2	—	25
1897	—	—	—	1	—	—	4	2	9	—	—	—	16
1898	—	—	—	1	—	12	3	4	5	—	—	—	25
1899	—	—	4	—	1	—	5	9	6	—	1	2	28
1900	—	—	—	1	—	—	—	6	2	—	—	—	9
1901	—	—	—	1	—	—	—	3	3	—	—	—	7
1902	—	—	—	1	1	7	2	3	5	—	—	—	19
1903	—	—	—	7	—	—	—	—	5	—	—	—	12
1904	—	—	—	4	—	1	—	—	9	—	—	—	14
1905	—	—	—	1	—	3	3	4	6	—	—	—	17
1906	—	—	—	2	1	3	1	4	4	—	1	1	17
1907	—	—	—	2	—	—	—	—	4	—	—	—	6
1908	—	—	—	3	—	7	—	7	1	—	—	—	18
1909	—	—	—	2	—	1	3	2	5	—	—	—	13
1910	—	—	1	—	—	—	—	1	—	—	—	—	2
1911	—	—	2	—	2	—	—	7	10	—	—	—	21
1912	—	—	—	4	1	2	1	—	6	—	1	—	15
1913	—	1	—	3	—	2	6	3	8	—	—	—	23

TABLE 37.

Under Art. V. Housing Regulations, 1910).

Number of houses inspected	...	...	...	...	...	46
„ unfit for habitation	...	...	...	...	...	5
„ representations to authority	...	...	...	...	...	5
„ closing orders made	...	...	...	...	...	5
„ houses remedied without closing orders	...	...	...	...	...	12
„ put in fit state after closing order	...	...	...	...	...	1

General character of defects found to exist : broken, irregular and faulty yard channelling, bad paving, defective drains and gullies, dilapidated and offensive privies, damp walls, general disrepair.

TABLE 38.

STAFFORDSHIRE COUNTY COUNCIL.

Summary of Sanitary Work done in the Nuisance Inspector's Department during the year 1913, in the Urban District of Biddulph.

				NUMBER OF		ABATEMENT NOTICES.		NUISANCES ABATED AFTER NOTICE BY	
				Inspections and Observations made.	Defects found.	Informal by Inspector.	Formal by Authority.	Inspector.	Authority.
Dwelling-Houses and Schools.	Foul Conditions	...	...	196	60	38	22	38	22
	Structural Defects	...	...	96	42	29	13	29	13
	Overcrowding	...	...	8	8	7	1	7	1
	Unfit for Habitation	...	...	4	4	...	4	...	4
	Lodging Houses	...	...	...	...	...	...	...	...
	Dairies and Milkshops	...	...	45	15	15	...	15	...
	Cowsheds	...	...	11	Inspected Quarterly	...	...	...	...
	Bakehouses... ..	...	...	3		...	...	...	...
	Slaughter-houses	...	...	...		...	...	...	...
	Canal Boats	...	...	...	...	...	...	...	...
	Ashpits and Privies	...	...	40	18	18	...	18	...
	Deposits of Refuse and Manure	...	...	12	12	12	...	12	...
House Drainage.	Water Closets	...	...	15	...	15	...	15	...
	Defective Traps	...	...	163	76	76	...	76	...
	No Disconnection	...	...						
	Other Faults	...	...	5	3	3	...	3	...
	Water Supply	...	...	...	...	...	...	...	...
	Pigsties	...	...	...	...	...	...	...	...
	Animals improperly kept	...	...	...	...	...	...	...	...
	Offensive Trades	...	...	...	...	...	...	...	...
	Smoke Nuisances	...	...	...	...	...	...	...	...
	Other Nuisances	...	...	...	...	...	...	...	...
TOTALS				598	238	213	40	213	40
<i>Precautions against Infectious Disease.</i>									Nos.
Lots of Infected Bedding Disinfected or Destroyed				...	...	...	...	...	1
Houses Disinfected after Infectious Disease				...	...	...	...	...	74
Schools ditto ditto				...	...	...	...	...	3

TABLE 39.

Annual Report of the Medical Officer of Health for the year 1913, for the Urban District of Biddulph on the administration of the Factory and Workshop Act, 1901, in connection with Factories, Workshops, Workplaces and Homework.

1.—INSPECTION.

Including Inspections made by Sanitary Inspectors or Inspectors of Nuisances.

Premises.			Inspections.	Number of Written Notices.	Prosecutions.
Factories ...	...	...	16	...	...
(Including Factory Laundries.)					
Workshops ...	...	...	83	...	...
(Including Workshop Laundries.)					
Workplaces ...	...	...	...	...	...
Total ...	...	...	99	...	...

2.—DEFECTS FOUND.

Particulars.	Found.	Number of Defects Remedied	Referred to H.M. Inspector.	Number of Prosecutions
<i>Nuisances under the Public Health Acts :—</i>				
Want of Cleanliness ..	7	7	...	...
Want of Drainage of Floors	2	2	...	...
Total ...	9	9	...	...

4.—REGISTERED WORKSHOPS.

Total number of Workshops on Register ...	...	47
---	-----	----

5.—OTHER MATTERS.

Matters notified to H.M. Inspector of Factories :—

Notified by H.M. Inspector	...	...	...	2
Reports (of Action taken) sent to H.M. Inspector	...	...	...	2

BIDDULPH URBAN DISTRICT.

Preliminary Note.—The matter found on pages 9 to 15 inclusive, is to be taken here as an integral part of this Report.

L.G.B. Tables.—The Notes have been carefully read, and the instructions carried out. (See page 14). The information asked for in Table II. will be found on p. 67 ; to which may be added that there is no Sanatorium for phthisis ; and that the Hospital for Infectious Diseases was described in the A.R. 1911.

Special Features.—There are no Public Institutions in the District, no Canals, and no Common Lodging Houses.

Memorandum from P.M.O. of L.G.B.—See p. 14.

Inspection by County M.O.H.—Matters recommended for attention were enumerated under six heads on page 53 of last A.R. The present position of each matter will be described in the appropriate section of this Report.

A.—Natural and Social Conditions of the District.

(1).—*Physical features, &c.*—

(2).—*Population, Social Conditions, &c.*—See p. 97 of A.R. 1908. The population this year has been estimated by arithmetical progression, based on the idea that the last decennial increase has been proportionately maintained. In subsequent years this method will need checking by ascertaining the number of new houses built, and the actual number of inhabited houses.

No information is available about poor-law relief ; nor about hospital and other forms of gratuitous medical relief.

B.—Sanitary Circumstances of the District.

Water Supply.—The main supply is the Biddulph Park Reservoir, fed by springs, situated 750 feet above sea level, and 350 feet above the bottom of the valley, with a capacity of 160,000 gallons. This at present supplies a population of about 6500. There is a second supply at Nettlebeds, which is pumped up to a reservoir on the top of Biddulph Moor (1000 feet). This has a capacity of 30,000 gallons, and supplies the Biddulph Moor and Horton districts, and can be connected at Knypersley to the first-named supply, to supplement it when necessary. The water has always been reported on chemical analysis to be of first class quality.

The Council has also recently arranged to purchase three-quarters of an acre of land for the purpose of constructing

another reservoir at Biddulph Park, and so increasing the storage.

Rivers and Streams.—See p. 137, A.R. 1910.

Drainage and Sewerage.—The sewage-disposal works are constructed to deal with a flow of about 100,000 gallons per 24 hours. They include a screening chamber, two detritus tanks of 5000 gallons each, a storm tank of 20,000 gallons, two open septic tanks of 50,000 gallons each; a measuring chamber with automatic alternating gear, and three circular filters (or bacteria beds), each 66 feet in diameter, and 5 feet deep. The sewage is simple domestic sewage, contains no deleterious trade waste, and is easy to treat. Practically the whole of the solids brought down in suspension are dissolved in the tanks, and next to no permanent deposit occurs. The tanks have been emptied for examination, and that was what was found. After 3 years' work there is not enough sludge to interfere with their continuous work. The filters have similarly been examined, and it is found that a top layer, 15 inches deep, requires forking over, and occasionally removing and washing. All material below that is as clean as new. The effluent has the appearance of clear water.

The land purchased for the site is $6\frac{1}{4}$ acres, of which the works occupy 3 acres, the remainder being used for irrigation and crops.

It is very desirable that a fourth filter should be built without delay; and an additional tank will be needed in the future if the population continues to increase, as, although the works are as near perfection as possible, it is obvious that each process would be less efficient if it were required to deal with an increased flow.

Mr. Gibson says:—"New sewers continue to be laid as occasion requires—the most important being at Rock End, Biddulph Moor—a sewer which was very badly needed, and difficult and expensive to carry out, but one that is giving great satisfaction to the District that it serves."

Biddulph Moor and Horton.—Negotiations with the Leek Rural Council have proved fruitless. The nuisance therefore continues, viz.: sewage from certain houses in Horton running into the roadside and land in Biddulph. Legal proceedings against the Leek R.D.C. appear to be the only solution; but I think the question should be taken up by the County Council, as there is no doubt the fear of an unknown expense will prevent the Biddulph Council from acting.

Black Bull.—This area forms the southerly limit of the District, and is contiguous to the Smallthorne Urban District. If, as is expected, the Council of the latter District provide sewers on their side, which is the more populous, then Biddulph will arrange to connect, on terms, in place of attempting to make a small independent scheme.

Whitemoor.—Nothing has been done here, as yet.

Closet Accommodation.—The following figures are as close an estimate as possible. Privies (fixed receptacles) 391, decrease 9; water-closets 101, increase 1; waste water-closets, *nil*; peat-pails 1085, increase 19; other arrangements, *nil*. Conversions to water-closets, one. This is not a satisfactory report, revealing, as it does, stagnation; but there is some explanation to offer. Conversions will tax water-supply, and sewage works; and there is no certainty that either will stand it without further expenditure, whose amount cannot be foretold. The Council is taking steps to augment the water supply; when this is done, Mr. Gibson promises to take up the matter of conversions. How long a delay will be entailed, I do not know. I repeat from my last Report :—

“The County M.O.H. points out in his report that “money would be saved if a loan were taken up for the “general establishment of the water-carriage system. The “L.G.B. is pressing the same advice upon local authorities “everywhere. The Biddulph Council will be wise to “consider the matter one of some urgency. Certainly as “regards all new property built in the future, the water- “carriage system must be the only one allowed; and it “would be well to strengthen the Surveyor’s position by “passing a formal resolution to that effect.”

Scavenging.—This is done by the Council’s own staff, supplemented when required by men employed temporarily. The pails are emptied weekly; privies less frequently; ashes weekly; (except in the case of out-lying houses).

Sanitary Inspections of District.—Table 38 is prepared by Mr. Gibson in a form issued by the County Council, to comply with Art. XX. (16) of the General Order. It will be noted that the large majority of improvements are carried out at the Inspector’s suggestion, without formal notice, and without special report to the Council; and that no abatement notices remain uncomplished with.

Premises and Occupations which can be controlled by Bye-laws or Regulations.—None.

Schools.—The structural and sanitary condition is excellent; the water supply good. The Central Council Schools were closed, February 14th to March 10th, primarily for diphtheria, secondarily for measles. They had reported, during January and February 6 cases of diphtheria, 38 of measles, 22 of whooping-cough, 3 of scarlet fever, and 2 of minor ailments. With the exception of 1 case of scarlet fever in July, no further notices were received. The C.E. School reported 9 cases of

measles in January, and 3 of whooping-cough ; nothing further. Biddulph Moor School reported 22 cases of whooping-cough in January, with 2 of scarlet fever and 7 of chicken-pox ; nothing further. Knypersley School reported in January 51 cases of whooping-cough, 37 of measles, 4 of diphtheria, and 7 of minor ailments ; 1 case of diphtheria in June ; nothing further. There are three possible explanations of this curious position :—(1) later notices did not reach me ; (2) there was an entire absence of infectious disease after February ; (3) notifications ceased to be sent in. Which is correct I do not know. .

Food. (a). Milk Supply.—Mr. Gibson briefly says :—

“Improvements continue to be made in dairies and cow-sheds. Improvements are more easily obtained in the large farms than in the smaller ones.”

I have given broad hints in previous Reports that I have not been satisfied with the amount of work done in this matter for the last few years. No blame attaches to the Inspector ; he simply cannot find time for it, owing to pressure of other duties. This is the more unfortunate, as it is the only means of ascertaining the quality of the milk and the cleanliness (or otherwise) of its production. We receive no help from analyses made elsewhere, as none of the milk goes out of the District. Time was when Mr. Gibson and I jointly visited all the cowsheds in each year ; but this has not been done lately.

Food. (b). Other Foods.—This Section has little application. There are only 4 slaughter-houses, and not many bake-houses ; these are regularly inspected. The meat supply is obtained from outside the District ; about tuberculous meat there is therefore no information.

Mr. Gibson says :—

“There are no new slaughter-houses or bake-houses. The existing ones continue to be kept in a satisfactory manner.”

Food. (c). Sale of Food and Drugs Act.—Administered by County authorities.

Housing.—Mr. Gibson has filled up Table 37 ; and adds :—

“This does not by any means represent the amount of work done in this matter.”

Following on the death of a certain owner, who had been an immovable obstacle for very many years, the Council has at last been able to purchase two cottages in Station Road which will enable a dangerous corner (projecting into the road) to be abolished ; and will at the same time afford facilities for the new street which it is proposed to lay out from Station Road to Congleton Road. This in its course will pass adjacent to the slum known as The Square, which is at present practically a

cul-de-sac ; and will enable many consequent improvements to be carried out. Mr. Heath is willing to demolish 3 old cottages ; and Mr. Gibson has instructions to proceed with the preparation of the general scheme. This, when completed, will be the most valuable piece of work that has ever been attempted in the District ; and will realise an ideal which I have constantly kept before the Council during the whole of the years that I have been their adviser.

Turning back to Table 37, (and its predecessor last year), it will be noted that 99 houses have been formally inspected and reported on in two years. As there were 1516 houses in 1911, and are probably now about 1560, it will be seen that the rate of progress must be very largely increased, if the Housing Regulations are to be reasonably carried out. No blame attaches to Mr. Gibson, he has done all that was possible in the time at his disposal. The County M.O.H.'s report on the housing question was quoted in my last Volume, and should be here referred to and amalgamated with this report. Among other important points it deals with overcrowding, to which therefore I need not further allude, beyond saying that one of the worst cases that I have ever known was reported (through the School Medical Officer) during the year.

The construction of new houses is supervised in relation to bye-laws.

Workshops, &c.—Mr. Gibson has prepared the Home Office Table, No. 39 ; and adds :—

“Factories and Workshops are kept under constant observation, and with very few exceptions are maintained “in a good condition.”

C.—Sanitary Administration of the District.

1. *Staff.*—Mr. Gibson is the only officer, besides myself. The Council has never had a larger staff. But the increasing population, and increasing duties, have brought us now to a point where it cannot any longer be ignored or disputed that one man, however able and however hard-working, cannot possibly do the work. It is, in my opinion, urgently necessary to separate the duties of the Surveyor from those of the Inspector of Nuisances, and to employ a separate officer for each post.

2. *Hospital Accommodation.*—See p. 23, A.R. 1911. See also Table 30 ; which shows that no less than 83 cases were removed to hospital out of 92 suitable. Hospital administration is in the hands of the Joint Hospital Board.

3. *Administration of adoptive Acts.*—The Infectious Diseases Prevention Act, 1890, and the Public Health Acts Amendment Act, 1890, need no further reference. The Notification of

Births Act, 1907, is being worked as before. See p. 140 A.R. 1910, and p. 26 A.R. 1911.

4. *Chemical and bacteriological work.*—This is done at the Birmingham University. Very few samples were submitted ; I have a record of two positive results only (in cases of diphtheria); there may have been a few more negative results not noted.

D.—Prevalence of and Control over Acute Infectious Diseases.—

Diphtheria.—Looking back on the year as a whole, an epidemic seems to have been always present. Table 35 is worth careful study. It will be seen there that the disease first became prevalent in 1901 ; and that every year since (except 1902, 1910 and 1911) there have been numerous cases ; but no year has had anything like the evil pre-eminence of 1913, in which no less than 78 cases occurred, or four times the average of the 9 bad years. Table 30 shows that the majority were of school age. The distribution in time was

January	1	July	9
February	14	August	14
March	5	September	14
April	4	October	11
May	1	November	0
June	3	December	2

The cases in February were connected with the Council Schools, and closure for 3 weeks effectually checked that particular outbreak. The main outbreak, from July to October, was accompanied by a wide-spread prevalence of "sore throats." It is probable therefore that there were a number of cases of so mild a character that they escaped notification ; (this was ascertained as a fact in two or three cases which were heard of whilst enquiring about others ;) and if this were so, it renders it unnecessary to suspect the existence of "carriers," or any other uncommon or unlikely cause. Personal contact was frequently proved ; though there were also numerous cases where no clue could be discovered. By locality the distribution was as follows :—Biddulph Moor 2, Brown Lees 3, Gillow Heath 6, Bradley Green 67. Of the latter 8 were in Congleton Road, 8 in High Street, and 8 in Tunstall Road, (these three together forming the main highway through the District,) 8 in John Street, (running parallel to High Street), and 35 in 9 minor streets in close connection with one or other of those named. This shows that there was no special centre or focus ; the distribution is fairly even all over the town. A most peculiar feature was that the epidemic affected houses where the sanitation was of the best, and (except for one case) entirely avoided the

slums. 72 of the cases were removed to hospital; including of course the most serious cases. 3 deaths occurred there. One case was in hospital at the end of the year.

Scarlet Fever.—Fourteen cases occurred, of which eleven were removed to hospital. No deaths occurred. I have carefully examined the distribution, both in time, and in locality; but there are no special features worth mentioning.

Poliomyelitis.—A death occurred on May 5th of a female infant, aged 4 months, the cause being given as “infantile paralysis.” The medical attendant says this was a child in which there was a syphilitic taint (in both parents). The paralysis extended during the period of attendance, first one arm and then the other being affected.

Cerebro-spinal Meningitis.—A death occurred on July 1st of a male child 4 years old. This case was only seen once alive, when great cervical rigidity was observed.

(*Note*.—Neither of the two last cases was notified. There was therefore no action by the Council or myself; and no bacteriological confirmation. The diagnoses may be open to some doubt).

Disinfection.—No steps have been taken to provide a local disinfecting station, as recommended by Dr. Reid. For steam disinfection the District is dependent on the West Heath Hospital, upwards of 4 miles away.

Minor Infectious Diseases.—These have been already alluded to in discussing school-closure. There were 2 deaths from measles and 6 from whooping-cough; or nearly 3 times as many as from the major diseases.

E.—Prevalence of and Control over Tuberculosis.—The year began with 8 cases on the register. 13 cases of phthisis and 2 of other forms of tuberculosis were notified, a total of 23. Of these, 6 died, and 2 are in Institutions beyond the District. 15 remain on the register at the end of the year.

It was absolutely impossible for me to keep these cases under supervision, without assistance; so, as I stated in my last Report, I resigned my appointment, to take effect at the end of 1913. At my request the Council selected a successor early in the year. Their choice fell upon Dr. J. Craig, of Biddulph. Then at my further request he was definitely appointed Assistant M.O.H.; and I immediately turned over to him this duty. I have much pleasure in giving his report, in his own words, as follows:—

Tuberculosis.—“At the request of Dr. Garstang, I took over “the Tuberculosis Section of the Public Health work of “Biddulph for the latter half of 1913.”

"On July 1st, 1913, there were on the Tuberculosis Register 14 cases, of which 12 were pulmonary, and 2 "other" forms of tuberculosis. From July 1st to December 31st, 6 fresh cases were notified, 5 pulmonary, and 1 "other." Of these 5 pulmonary cases, 2 were resident in Institutions outside the district, 1 female in Cheddleton Asylum, (where she had been for several years), and 1 male in Chell Union Infirmary. During the same period there were 5 deaths, all pulmonary, leaving on the list 15 cases, 7 males and 8 females. As 2 are non-resident, that left at end of 1913, 13 notified cases of tuberculosis in Biddulph. During the year 3 of the "other" cases, all of the cervical glands, were operated on in the North Staffordshire Infirmary. 2 were apparently cured, but 1 case, a young woman, shows signs of recurrence. "Domestic" treatment was given to 4 cases under the Sanatorium Benefit Section of the Health Insurance Act, but this ended on 15th July. One case was treated for some weeks in the Sanatorium at Stanfield Hospital, but no benefit was obtained, and the case returned home to die, against the wishes of the responsible authorities, who wished her to remain, as she was a source of danger to her family."

"Taking the work done under the various heads given in the Memorandum :—

- (a) "As most of the cases were my own, the only extra duty involved was taking particulars of family, and of housing accommodation and conditions. In the one resident case which I did not personally attend, I visited the case and took particulars, which are recorded."
- (b) "The above applies to subsequent visits."
- (c) "Feeling myself somewhat at a loss as to best way to initiate the "arrangements for detection of unrecognised cases of tuberculosis associated with notified cases of disease," I communicated with Dr. George Reid, Medical Officer for Staffordshire, and at his suggestion, Dr. C. Stirling Lee came to Biddulph and examined some cases with me. Since then a Tuberculosis Officer has been appointed for North Staffordshire, with whom I hope immediately to come in contact."
- (d). "Owing to the Tuberculosis Officer for this District only entering on his duties on January 1st, 1914, his services have not been available during 1913."
 "The Biddulph U.D. Council have for some years adopted the Notification of Births Act, and 2 Nurses have been employed in that work. Dr. Reid's County Scheme

“for utilising the services of Nurses in the Tuberculosis work was laid before the Council, but I have thought it advisable to wait for the appointment of a District Tuberculosis Officer before going into the scheme in detail.”

(e). The rooms and shelters occupied by tuberculosis cases “have been disinfected and washed down, but as we have no disinfecting apparatus in Biddulph, the clothing has been a difficulty. Some has been destroyed, and the remainder has been disinfected as carefully as possible.”

“No Sanatorium or other institutional treatment has been supplied by the Sanitary Authority itself. One case (as above) was for a short period in a Sanatorium, and 2 cases were provided with out-door shelters by the County Committee. I am hoping to get “Dispensary” treatment started early in 1914. This was strongly advised by Dr. Stirling Lee as being applicable to the cases I showed him.”

“In July I attended a Meeting of M.O.H. for the different Districts of the County, called by Dr. George Reid, to consider his proposed scheme for Tuberculosis Administration. I ventured to suggest that the Hospital proposed at Newcastle-under-Lyme for observation purposes and acute hopeless cases was rather small, and I understand 2 additional beds are now proposed. But until I have discussed the matter in its various bearings with the recently appointed Tuberculosis Officer for North Staffordshire, I am somewhat in the dark. Under the new scheme, a Dispensary is to be established in Biddulph, and this ought to prove of great value from the very first. The more one studies the question of Tuberculosis, the wider it is seen to be, and a District like Biddulph, which has grown somewhat rapidly, is one in which a fairly high incidence of attack may be expected, and ought to be provided against.”—JAMES CRAIG, M.B., M.R.C.S., Assistant M.O.H.

The County M.O.H. has been kind enough to send me the following information :—

“The position as regards tuberculosis arrangements under E(d) of the Memorandum of the Board is that a Tuberculosis Officer has been appointed and is at work in the area in which Biddulph is situated, and that negotiations are now in progress for providing for health visiting of tuberculosis patients. For these purposes the Tuberculosis Officer is, and the Health Visitor will be, officers of the local sanitary authority and will work in co-operation with the Medical Officer of Health.”—GEO. REID.

F.—Investigation of other Diseases.—There is no report under this head. There is no food-poisoning.

G.—Means for preventing Mortality in Child-birth and in Infancy.—There are no means of preventing mortality in child-birth; but an attempt has been made to save infant lives by employing health-visitors under the Notification of Births Act.

The work done has been as follows :—

1910	226 births notified	745 visits paid
1911	178 " "	1475 " "
1912	247 " "	1856 " "
1913	197 " "	2378 " "

The infantile mortality figures have been as follows :—

Average of 5 years,	1890 to 1894,	153
" " "	1895 to 1899,	133
" " "	1900 to 1904,	130
" " "	1905 to 1909,	120
Average of 4 years,	1910 to 1913,	122

The worst individual years were

1891	173
1893	170
1906	166
1900	165
1894	157

and the best were

1908	87
1901	90
1907	97
1903	98
1910	98

It is difficult to interpret all these figures, but all the good years are since 1900, and four out of five of the bad ones were before 1901. A steady improvement has been going on all the time, despite "swings of the pendulum"; and it can only be a perverse fate that has made the last four years, when there has been health-visiting, show a slightly worse figure than the five years next preceding, when there was none. That I am disappointed goes without saying. I do not attach any blame to the visitors; one and all have worked loyally and well. It is a fact however, as disclosed by the figures, that in 4 years, 6454 visits have been paid to 848 children, or 7·6 visits per child, which is much less than a visit per month on the average. I cannot conscientiously say that I am satisfied. It may be that the system is faulty by which the Council utilises the services of nurses whose primary duty is to another committee or person. For that I must accept the responsibility. If I had been

remaining as M.O.H. I should certainly have asked the Council to amend the scheme, and give me one whole-time nurse, to be under my personal authority.

Ophthalmia Neonatorum. No case has been brought to my knowledge.

H.—Vital Statistics of the District.—These are contained in the Tables. The birth-rate 27·9, is the same as that of 1911, and is the lowest recorded, though it is no less than 5·7 above the average for Rural England and Wales for 1913. The death-rate, 13·4, is satisfactorily low, for Staffordshire, and is only 0·3 above the average for R.E. and W. The infant mortality figure, 136, is no less than 40 above the average for R.E. and W. The deaths (104) include 2 from measles, 6 from whooping cough, 3 from diphtheria, and 3 from diarrhœa, total 14, rate 1·8; also 8 from phthisis, rate 1·0. Table 32 gives details of the infantile deaths, many of which ought to have been avoided. I commend Tables 35 and 36 to my successor; they contain the history of infectious disease in Biddulph for 24 years in a handy form for reference, and are worth many pages of printed history. The other Tables have already been dealt with.

Printing and Distribution of Report.—This has always been done as is now requested by the L.G.B.

Conclusion.—And now the time has come to lay down the pen which has laboured for you for 18 full years, and has written 19 Annual Reports. Let my leave-taking be brief, but none the less heart-felt and sincere. I thank all the members, past and present, of the Council, and all its Officers, for much kindness and consideration. Accept my best wishes for good fortune in the future, for the District, for the Council, for the Officers, and especially for the new Medical Officer of Health!

And so farewell.

T. W. H. GARSTANG,

D.P.H. Vict.

March 2nd, 1914.

Knutsford Urban District.

ANNUAL REPORT OF MEDICAL OFFICER OF HEALTH FOR 1913.

Population at Census 1901, 5,172.

(4,686, exclusive of strangers in Public Institutions).

Population at Census 1911, 5,760, gross;

(5,124, nett).

Increase, 438.

Estimated Population, 1913, 5,831 gross, 5,212 nett.

Area of District in Acres (exclusive of area covered by water) $1,760 - 42 = 1,718$.

Number of Inhabited Houses, 1,135.	} At Census of
Average Number of Persons per House, 4.5.	
	1911.

Institutions within the District receiving sick and infirm persons from outside the District: H.M. Prison. Union Workhouse.

Institutions outside the District receiving sick and infirm persons from the District: Hospital for Infectious Diseases at Monsall; Sanatorium for Phthisis at Baguley; Manchester Royal Infirmary, and other Hospitals.

Other Institutions, the deaths in which have been distributed among the several localities in the District: None.

Workhouse (Bucklow Union). Situated in this District.

Birth Rate per 1,000 living, 23.0.

Death Rate per 1,000 living, 10.8.

Deaths under one year in proportion to 1,000 Births 67.

Each birth or death contributes to the Rate 0.19186.

TABLE 40.

(Local Government Board Table I.)

Vital Statistics of Whole District during 1913 and Previous Years.

Name of District, KNUTSFORD (URBAN).

YEAR.	Gross Population.	Nett Population estimated to Middle of each Year.	BIRTHS.			TOTAL DEATHS REGISTERED IN THE DISTRICT.		TRANSFER-ABLE DEATHS.		NETT DEATHS BELONGING TO THE DISTRICT.			
			Uncorrected Number.	Nett.		Number.	Rate.	of Non-residents registered in the District.	of Residents not registered in the District.	Under 1 Year of Age.		At all Ages.	
				Number.	Rate.					Number.	Rate per 1000 Nett Births.	Number.	Rate.
1908	5903	4992	155	148	29·6	145	...	76	...	12	81	69	13·8
1909	5963	5036	126	114	22·6	133	...	71	1	11	96	63	12·5
1910	6002	5080	123	111	21·8	115	...	58	3	10	90	60	11·8
1911	5983	5124	126	113	22·0	113	...	54	4	9	80	63	12·3
1912	6027	5168	111	96	18·6	120	...	57	4	9	94	67	13·0
1913	5831	5212	131	120	23·0	105	...	51	4	8	67	58	10·8

TABLE 41.—(Local Government Board Table II.)

Cases of Infectious Disease notified during the Year 1913.

Name of District, KNUTSFORD (URBAN).

NOTIFIABLE DISEASE.	NUMBER OF CASES NOTIFIED.							TOTAL CASES NOTIFIED IN EACH LOCALITY.			TOTAL CASES REMOVED TO HOSPITAL.
	At Ages—Years.							District.	WORK-HOUSE.	GAOL.	
	At all Ages.	Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 45.	45 to 65.				
Small-pox ...	..	..	..	..	..	..	..	..	..	..	..
Cholera (C) Plague (P)	..	..	..	..	..	..	..	..	..	..	..
Diphtheria (including Membranous Croup)	4	..	..	1	..	..	..	..	4	..	3
Erysipelas ...	2	..	..	..	..	1	1	..	2	..	..
Scarlet Fever	1	..	1	..	..	..	..	..	1	..	..
Typhus Fever	..	..	..	..	..	..	..	..	..	..	..
Enteric Fever	1	..	..	..	..	1	..	..	1	..	1
Relapsing Fever (R)	..	..	..	..	..	..	..	..	..	..	..
Continued Fever (C)	..	..	..	..	..	..	..	..	1	..	1
Puerperal Fever	1	..	..	..	..	1	..	..	..	..	..
Cerebro-Spinal Meningitis ...	..	..	..	..	..	..	..	..	..	..	..
Polionymyeltitis	..	..	..	..	..	..	..	..	..	..	..
Pulmonary Tuberculosis	11	..	2	1	1	7	1	..	9	2	3
Other forms of Tuberculosis	7	1	2	1	2	..	1	..	3	4	..
Totals ...	27	1	5	4	4	10	3	..	21	6	8

TABLE 42.

(Local Government Board Table III.)

Causes of, and Ages at, Death during the Year 1913.

Name of District, KNUTSFORD (URBAN).

CAUSES OF DEATH.		Nett Deaths at the subjoined ages of "Residents" whether occurring within or without the District.								Total Deaths whether of "Residents" or "non-Residents" in Institutions in the District.	
		All Ages.	Under 1 year.	1 & under 2 years.	2 & under 5 years.	5 & under 15 years.	15 & under 25 years.	25 & under 45 years.	45 & under 65 years.		65 & up- wards.
All Causes	{ Certified ... Uncertified ..	58 0	8 ..	3 ..	1 ..			5 ..	18 ..	23 ..	62 0
Enteric Fever	...	..	..	..	..	..	..	..	..	..	..
Small-pox	...	..	..	..	..	..	..	..	..	..	..
Measles	...	..	..	..	..	..	..	..	..	..	..
Scarlet Fever	...	..	..	..	..	..	..	..	..	..	..
Whooping Cough	...	..	..	..	..	..	..	..	..	..	..
Diphtheria and Croup	...	..	..	..	..	..	..	..	..	..	..
Influenza	...	2	..	..	..	..	..	..	2	..	1
Erysipelas	...	..	..	..	..	..	..	..	..	..	..
Phthisis	...	..	..	..	..	..	..	..	..	..	..
(Pulmonary Tuberculosis)	...	4	..	1	..	..	..	2	1	..	10
Tuberculous Meningitis	...	..	..	..	..	..	..	..	..	..	..
Other Tuberculous Diseases	...	3	1	1	..	..	..	1	..	..	..
Cancer, Malignant Disease	...	1	..	..	..	..	..	..	1	..	7
Rheumatic Fever...	...	..	..	..	..	..	..	..	..	..	..
Meningitis..	...	..	..	..	..	..	..	..	..	..	1
Organic Heart Disease	...	8	..	..	..	..	..	..	4	4	5
Bronchitis	...	4	..	..	1	..	..	..	1	2	..
Pneumonia (all forms)	...	1	1	..	..	..	..	..	..	..	1
Other Diseases of Respira- tory Organs	...	..	..	..	..	..	..	..	..	..	..
Diarrhoea and Enteritis	...	..	..	..	..	..	..	..	..	..	..
Appendicitis and Typhlitis	...	..	..	..	..	..	..	..	..	..	..
Cirrhosis of Liver	...	1	..	..	..	..	..	..	1	..	1
Alcoholism	...	..	..	..	..	..	..	..	..	..	1
Nephritis & Bright's Disease	...	3	..	..	..	..	..	..	3	..	2
Puerperal Fever	...	..	..	..	..	..	..	..	..	..	..
Other Accidents and Dis- eases of Pregnancy and Parturition	...	..	..	..	..	..	..	..	..	..	..
Congenital Debility and Malformation, includ- ing Premature Birth	...	6	6	..	..	..	..	..	..	..	..
Violent Deaths, excluding Suicide	...	1	..	..	..	..	..	..	..	1	..
Suicide	...	1	..	..	..	..	..	..	1	..	1
Other Defined Diseases	...	23	..	1	..	..	..	2	6	14	32
Diseases ill-defined or un- known	...	..	..	..	..	..	..	..	..	..	..
Totals	...	58	8	3	1	..	..	5	18	23	62

TABLE 44.

Births, 1913.

		M.	F.	Total.	Rate.	Of which Illegit.			Additional in Workhouse.					
						M.	F.	Total.	M.	F.	Total.	Illegit.		
												M.	F.	Total.
1st Quarter	...	22	7	29	22·6	0	0	0	4	3	7	4	3	7
2nd	„	16	10	26	20·0	1	1	2	0	0	0	0	0	0
3rd	„	17	10	27	20·6	0	0	0	1	1	2	1	1	2
4th	„	19	19	38	28·9	1	2	3	1	1	2	1	1	2
		74	48	120	23·0	2	3	5	6	5	11	6	5	11

TABLE 45.

Shewing Deaths, Death-rates, Deaths from Special Diseases, and Old Age and Infantile Deaths, in the Four Quarters of the Year, 1913.

QUARTER ENDING.				Total Deaths.	Rate.	DEATHS.		ZYMOTIC DEATHS.		Phthisis.	Other Tuberculosis.
						At 65 Years and up- wards.	Under One Year.	Total.	Rate.		
March 31	...	...	...	24	18·7	15	4	0	0·0	0	1
June 30	...	...	...	12	9·2	2	4	0	0·0	1	1
Sept. 30	...	...	...	6	4·6	2	0	0	0·0	1	0
Dec. 31	...	...	...	16	12·2	4	0	0	0·0	2	1
Total	...	...	...	58	10·8	23	8	0	0·0	4	3

TABLE 46.

Notifications of Infectious Diseases.

(No records prior to 1895).

Year.	Small-pox.	Scarlet Fever.	Diphtheria.	Enteric Fever.	Puerperal Fever.	Erysipelas.	Phthisis.	Other Tuber- culosis.	TOTAL.
1895	—	17	—	1	—	3	—	—	21
1896	—	5	—	—	—	6	—	—	11
1897	—	2	—	—	—	1	—	—	3
1898	—	—	1	2	—	2	—	—	5
1899	—	62	—	3	1	2	—	—	68
1900	—	3	7	2	1	1	—	—	14
1901	—	7	5	2	—	1	—	—	15
1902	—	2	3	—	1	2	—	—	8
1903	4	7	6	1	1	6	—	—	25
1904	2	2	7	1	2	3	—	—	17
1905	—	2	4	2	2	4	—	—	14
1906	—	40	4	8	—	5	—	—	57
1907	—	52	4	6	1	1	—	—	64
1908	—	10	1	2	—	1	—	—	14
1909	—	7	1	1	—	—	—	—	9
1910	—	21	—	37	—	2	—	—	60
1911	—	20	—	8	1	—	6	—	35
1912	—	6	1	—	—	1	13	—	21
1913	—	1	4	1	1	2	11	7	27

TABLE 47.

Deaths from Special Diseases.

Year.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping- cough.	Enteric Fever.	Diarrhoea.	Phthisis.	Other Tuber- culosis.	Puerperal Fever.	Erysipelas.	TOTAL.
1890	—	—	—	—	—	—	—	7	—			7
1891	—	1	—	—	—	—	1	4	—	No		6
1892	—	6	1	—	3	—	—	2	—			12
1893	—	—	2	—	—	—	1	3	—	Records		6
1894	—	—	—	—	—	—	—	4	—			4
1895	—	—	—	—	—	2	—	4	—	—	—	6
1896	—	—	—	—	3	—	3	—	—	—	—	6
1897	—	1	—	—	—	—	8	1	—	—	—	10
1898	—	—	—	—	—	—	10	6	—	—	—	16
1899	—	—	—	—	2	1	1	4	—	1	—	9
1900	—	—	—	2	—	2	3	4	—	1	—	12
1901	—	—	—	2	2	—	3	2	—	—	—	9
1902	—	3	—	—	—	—	—	5	—	1	—	9
1903	—	—	—	1	2	—	3	2	—	—	—	8
1904	1	—	—	—	1	1	2	3	—	1	—	9
1905	—	—	—	—	3	—	1	3	—	1	—	8
1906	—	5	1	—	—	2	1	2	—	—	1	12
1907	—	1	1	—	2	1	—	3	—	—	—	8
1908	—	3	—	—	1	1	2	1	—	—	—	8
1909	—	—	—	—	—	—	—	2	—	—	—	2
1910	—	—	—	—	—	4	—	5	—	—	1	10
1911	—	—	—	—	5	1	3	2	—	—	—	11
1912	—	9	—	—	—	—	—	4	—	—	—	13
1913	—	—	—	—	—	—	—	4	3	—	—	7

TABLE 48.

CHESHIRE COUNTY COUNCIL.

Tabular Statement of Inspector of Nuisances for the Year ended
December 31st, 1913.

Knutsford Urban District.

Nature of Inspections Made.	A Number	B Number of Notices served.		C Result of Service of Notices.			
		Statu- tory.	Inform- al.	Notices compli- ed with.	Remain- ing in hand	Prosecutions.	
						Insti- tuted.	Pend- ing.
1. Dwelling Houses (general inspections) ...	64	2	3	5	...	...	...
2. Cellar Dwellings	None in	District	...	...	...	...	...
3. Back-to-Back Houses	4	...	...	...	...	...	...
4. Tents, Vans, Sheds, &c. ...	None in	District	...	...	...	...	...
5. Courts, Yards, Passages ...	10	...	...	...	...	...	...
6. Privy-Middens, Earth or Pail Closets ..	825	25	6	21	10	...	...
7. Cesspools ...	25	...	...	...	...	...	...
8. House Drainage ...	148	11	...	8	3	...	...
9. Ditches, Watercourses, &c. ...	0	...	...	...	...	...	...
10. Offensive Accumulations ..	12	...	2	2	...	...	...
11. The keeping of Animals (P.H.A., 1875, S. 91 (3))	4	...	...	...	...	...	...
12. Offensive Trades ...	None in	District	...	...	...	...	...
13. (a) Slaughterhouses (Public) ...	None in	District	...	...	...	...	...
" (Private) ...	59	...	14	14	...	...	...
(b) Other Places where Food is produced or sold	5	...	...	...	...	...	...
14. Piggeries ...	17	...	...	...	...	...	...
15. (a) Dairies... ..	0	...	...	...	...	...	...
(b) Cowsheds ...	46	...	2	2	...	...	...
(c) Milkshops ...	4	...	...	...	...	...	...
16. (a) Factories ...	24	...	...	...	...	...	...
(b) Workshops ...	90	1	1	2	...	...	...
(c) Workplaces ...	15	...	...	...	...	...	...
(d) Outworkers' Premises ...	0	...	...	...	...	...	...
17. Bakehouses (Overground) ..	47	...	10	10	...	...	...
" (Underground) ...	None in	District	...	...	...	...	...
18. Common Lodging Houses ...	None in	District	...	...	...	...	...
19. Houses let in Lodgings ...	None in	District	...	...	...	...	...
20. Smoke Observations ...	0	...	...	...	...	...	...
21. Canal Boats ...	None in	District	...	...	...	...	...
22. Infectious Disease Inquiries and Re-visits	26	...	...	...	...	...	...
23. Miscellaneous ...	52	2	2	4	...	...	...
Totals ...	1477	41	40	68	13	...	...

(Signed) R. WILSON MARSHALL.

TABLE 49.

Annual Report of the Medical Officer of Health for the year 1913, for the Urban District of Knutsford on the administration of the Factory and Workshop Act, 1901, in connection with Factories, Workshops, Workplaces and Homework.

1.—INSPECTION.

Including Inspections made by Sanitary Inspectors or Inspectors of Nuisances.

Premises.			Inspections.	Number of Written Notices.	Prosecutions.
Factories	...	...	24	...	...
(Including Factory Laundries.)					
Workshops	...	...	90	11	...
(Including Workshop Laundries.)					
Workplaces	...	...	15	...	...
Total	...	...	129	11	...

2.—DEFECTS FOUND.

Particulars.	Found.	Number of Defects			
		Remedied	Referred to H.M. Inspector.	Number of Prosecutions	
<i>Nuisances under the Public Health Acts :—</i>					
Want of Cleanliness ...	10	10	...	...	
Sanitary Accommodation—					
Insufficient ...	1	1	...	...	
Breach of Special Sanitary Requirements for Bake- houses	10	10	...	...	
	—	—	—	—	
Total	21	21	...	...	
	—	—	—	—	

3.—HOME WORK.

				Lists received from Lists.	Employers. Workmen.
Wearing Apparel—					
Making, &c.	...	...	2	...	2

4.—REGISTERED WORKSHOPS.

Class.						Number.
Factories	...	...	...	...	...	14
Workshops—Sundry ...	...	...	...	...	...	33
Workplaces	...	...	...	...	...	6
Domestic Workshops ...	...	...	...	...	...	9
Bakehouses	...	...	...	...	...	14
Total number of Workshops on Register	...	...	...	...	...	76

KNUTSFORD URBAN DISTRICT.

Preliminary Note.—The matter found on pages 9 to 15 inclusive, is to be taken here as an integral part of this Report.

L.G.B. Tables.—The Notes have been carefully read, and the instructions carried out. (See page 10). In Table I. the nett population is arrived at by deducting the number of prisoners in the Gaol and of pauper inmates in the Workhouse. The information asked for in Table II. will be found on p. 90; and this District is a partner in the Bucklow Joint Hospital Board, (see previous Reports), which now has a limited number of beds for phthisis in addition to accommodation for ordinary infectious diseases.

Memorandum from P.M.O. of L.G.B.—See p. 10.

A.—Natural and Social Conditions of the District.

(1).—*Physical features, &c.*—

(2).—*Population, Social Conditions, &c.*

See p. 119 of A.R. 1908.

No information is available about poor-law relief; nor about hospital and other forms of gratuitous medical relief.

B.—Sanitary Circumstances of the District.

Water Supply.—This has been the subject of much special inspection and report for many years. The position is summed up on p. 119 of A.R. 1908. The supply being in the hands of a private company, it is difficult to give recent and accurate information. It is however known that the ozonising plant, mentioned last year, was not retained in use. The Council regularly notifies the Water Company of any pollution of the stream noticed; and the latter body undertakes the systematic inspection which is so necessary. The stream traverses the Districts of three other Authorities before entering Knutsford; and in fact it never is “in” this District as it forms the township boundary on one side.

Rivers and Streams.—None, except the brook which forms the water supply, and one smaller; see p. 39, A.R. 1910.

Drainage and Sewerage.—See p. 42, A.R. 1911; pp. 39, 40, A.R. 1910; and numerous previous Reports.

Mr. Marshall reports:—“The whole of the sewers in the town have been periodically inspected, and all deposits removed. The work of abolishing old and defective catch-pits, and replacing them with stoneware trapped

“street gullies has been proceeded with. Owing to a serious stoppage in Canute Place, it was necessary to locate the junction of the Manchester Road and Northwich Road sewers, a difficult matter owing to the absence of any authentic plan. It was however done, and the obstruction (wooden laths) removed. Opportunity was taken to build two new man-holes, so as to facilitate inspection and cleansing in the future. A new Ventilator has been fixed in Cranford Avenue. The sewage-disposal works have given excellent results. Samples of effluent were taken three times by the M. and I.J.C. for analysis. All results were good ; and twice in succession we stood *first* in lists of 47 and 71 examinations respectively. The cost was : Wages £93 17s. 11d., chemical precipitant (patent) £162 13s. 10d., gas engine and sundries £8 13s. 6d. ; total £265 5s. 3d.”

Closest Accommodation.—Mr. Marshall says :—“There are approximately 83 privies, 149 slop or waste water closets, 147 peat-pails, and 869 water closets. 5 privies and 27 water closets were repaired.”

“During 1913 there have been 3 privies and 7 pail-closets converted to water closets, and 10 additional water closets provided to cottages which before had only a joint use of conveniences.”

Scavenging.—Mr. Marshall says :—“29 insanitary ash-pits have been abolished, and 79 galvanised iron covered bins provided. This work is being pressed steadily forward ; a circular letter having been sent to all owners of unconverted conveniences, inviting them to keep abreast of the general movement for sanitary improvement. 1935 ash-pits have been cleansed, and 8172 pails. 38689 ash-bins have been emptied, and 2826 cart-loads removed to the tip. The cost was, Labour, £409 2s. 10d., Horse-keep, £60 10s. 9d., shoeing, £19 12s. 11d., sundry repairs, £8 19s. 5d., total, £498 5s. 11d.”

Sanitary Inspections of District.—Table 48 gives the particulars of Mr. Marshall's routine work, in a form prepared by the County M.O.H. ; and another table in manuscript has been furnished to him, which it is not necessary to print this year. (Refer to Table 25, A.R. 1911).

Premises and Occupations which can be Controlled by Bye-laws or Regulations.—None. There are no Common lodging-houses, no cellar dwellings, no offensive trades. That is to say, no lodging-houses are registered. It is probable, and approaching certainty, that houses are irregularly used as such ; but no action has been taken.

Schools.—The sanitary condition and water supply of all public elementary schools are good. No schools were closed.

Food. (a). Milk Supply.—There are no changes in the register, which contains 5 cowkeepers, 3 cowkeepers and purveyors, 2 purveyors, 1 milk-shop. All premises are periodically inspected. There were no alterations. Milk also comes into the town from the adjoining townships in the Rural District. The latter also do a very large trade with Manchester, Stretford, &c., through the Knutsford station of the C.L.C. railway.

Food. (b). Other Foods.—The sanitary condition of premises where foods are prepared, stored, or exposed for sale, is satisfactory. There are 14 bakehouses, which are regularly inspected, and always found clean. There are 7 private slaughter-houses, which are regularly inspected, and all meat found therein is examined. Mr. Marshall has examined the following carcasses :—oxen 33, sheep 32, pigs 12, calves 5, total 82. All were sound and of good quality, except one, and this was dealt with by the chief inspector at the Manchester Abattoirs.

Food. (c). Sale of Food and Drugs Act.—This is administered by the County Council.

Housing.

Number of Houses inspected under Section 17 of Act of

1909	56
Number unfit for habitation...	0
Number of representations	0
Number of closing orders	0
Number where defects were remedied without closing orders	53
Number remedied after closing orders	0

General character of defects : Defective drains and paving, dampness, want of ventilation, insufficient or defective sanitary conveniences.

There are 730 houses within limits of rent in Sect. 14 of Act. There are 14 back to back houses. There were no new houses built in 1913, (nor in 1912).

The scheme for the "Princess Street area" is blocked by one owner, and application has been made to the L.G.B for an arbitration.

The Council is anxious to erect workmen's dwellings, but it is difficult to obtain land. A great deal of time was spent by members of the Council in negotiations for a field of about 4 acres in Cross Town, and especially by Mr. Marshall in surveying the same, and arranging (on paper) for laying it out, sewerage, &c., as well as on details of construction of houses proposed to be built. When all was practically complete, the offer was withdrawn ; and an offer made of another field about the same

size. This the Council is now endeavouring to secure. Unfortunately much of Mr. Marshall's work on the former site is thrown away.

Workshops, Workplaces, &c.—Table 49, framed by the Home Office, filled up by Mr. Marshall, gives the required figures. Under this heading there has been nothing during the year that calls for any special comment.

C.—Sanitary Administration of the District.

1. *Staff.*—As is customary in small Urban Districts, there is only one whole-time executive officer, who has to undertake all the duties that pertain to road-surveyor, building-surveyor, sewage-works manager, head of the scavenging staff, and inspector for all purposes. Mr. Marshall has had a very strenuous year; and in my opinion it is entirely owing to a fortunate absence of epidemics that he has been able to do so much in other directions. And in each department more would have been done but for the conflicting claims of the other departments. I think the time has arrived when careful consideration should be given to the question of providing him with assistance.

2. *Hospital Accommodation.*—Ample. Provided by the Joint Hospital Board. We have nothing to do with administration. Three cases of diphtheria, one of enteric fever, and one of puerperal fever, were removed to Monsall Hospital.

3. *Administration of local Acts and general Adoptive Acts.*—There is nothing outside the usual routine of work. There are no local Acts. The Acts adopted are the Infectious Diseases Prevention Act; the Notification of Births Act; Parts II. and III. P.H.A. Amend. Act, 1890, and some sections of P.H.A. Amend. Act, 1907.

4. *Chemical and Bacteriological Work.*—No chemical work has been, or is likely to be, required. Bacteriological work is done at Professor Delépine's laboratory. It consisted in 1913 of four diphtheria examinations (3 positive), and two enteric fever (1 positive).

D.—Prevalence of, and Control over, Acute Infectious Diseases.—Table 41.

Diphtheria.—An isolated case occurred in March; and three in June and July. The latter were infants under school age; two of them lived close together. Three went to hospital. All recovered.

Erysipelas.—Two cases, of no importance.

Scarlet Fever.—One case; imported.

Enteric Fever.—One case; imported. Removed to hospital; recovered; and left the town.

Puerperal Fever.—One case; removed to hospital; recovered.

Measles, Whooping Cough, &c.—Absent.

General.—I have never had a lighter year to report on, in any District. There is not a single death from any “zymotic” disease.

E.—Prevalence of and Control over Tuberculosis.—The year commenced with 11 cases of phthisis on the register, besides 1 in the Workhouse. 2 died during the year. 11 more cases were notified, (2 in the Workhouse); and 7 cases of other forms of tuberculosis, (4 in the Workhouse). 1 phthisis case, and 2 “other” cases have died; leaving 17 phthisis cases in the town, and 3 in the Workhouse, and 1 case of other tuberculosis in the town, and 4 in the Workhouse. (The case in the town was wrongly diagnosed, and may be eliminated). Excluding all cases in the Workhouse, I therefore have 17 cases of phthisis on the register, to be supervised. Of these, 3 are in a social position, which renders my supervision unnecessary; and 2 (it is hoped) are cured. The remaining 12 do not include more than one acute case, and are visited occasionally. As stated before in this volume, I have conscientiously considered that this work devolved upon myself, and I have (equally conscientiously) carried it out personally. I have made no search for unrecognised cases.

A tuberculosis officer has recently been appointed by the County Council; but detailed arrangements are not yet so far advanced as to be within my knowledge. I sent one case into the Baguley Sanatorium, and two others were sent into other Sanatoriums by the County Insurance Committee.

F.—Investigation of other Diseases.—This does not apply. There are no influences threatening the health of the District. There is no excessive prevalence of any group of diseases. There is no food-poisoning.

G.—Means for preventing Mortality in Child-birth and in Infancy.—There are now only two certified midwives; and they are regularly visited by myself on behalf of the County M.O.H. The District Nurse continues to work under the Notification of Births Act. In 1913 she had on the average 60 babies on her list, and she paid 1095 visits. She notified to me 4 still births, 8 deaths, and 7 removals. The Infant Mortality Figures have been

Average of 5 years	1895—1899	153
”	”	”
”	1900—1904	120
”	”	”
”	1905—1909	88
”	”	”
”	1910—1914	83

This shows that gratifying and steady improvement has been going on ever since the District was formed. It also shows that nearly the whole had occurred before the work under the Notification of Births Act was taken up. An even worse result is noted in the Biddulph Report. Taking the two together I must confess my inability to offer any explanation, and my disappointment at the fact.

H.—Vital Statistics.—These will be found in the Tables (40 to 47). Table 42 shows an entire absence of deaths from zymotic diseases. 4 deaths from phthisis give a Rate of 0·8. No less than 23 deaths occurred at over 65 years. Deducting the above, and 8 infantile deaths, it only leaves 27 deaths from all other causes between the ages of 1 and 65 years. In Table 43 the numbers are too small to permit of generalisation. Tables 46 and 47 are always peculiarly interesting to myself, and contain much valuable information as to epidemiology in the past history of the District in a form in which the understanding eye can see at a glance the equivalent of many pages of description.

Printing and Distribution of Report.—This has always been done as suggested.

Conclusion.—I wish to acknowledge my obligation to Mr. Marshall for much statistical information which I have embodied in this Report. The Report appears short; the reason is that the year has been uneventful. So for this we ought really to be thankful!

T. W. H. GARSTANG, D.P.H.

March 10th, 1914.



Bucklow Joint Hospital Board

1913.

This is not a Report under Art. XIX. (14) and (16), of the Local Government Board's Order; but is published at the suggestion of myself as Medical Adviser to the Board, by the permission of the Board, for the information of the various Authorities which comprise it.

The conditions under which the Districts forming the Board have access to the Hospitals of the Manchester Corporation, and the extent of the accommodation which they can claim, were explained in detail in my Report for 1908. During 1912 these arrangements were modified as follows:—the Baguley Sanatorium will be kept for phthisis cases only, and the Board has the right to occupy 10 beds, a number which may in the future be increased to 15 as a maximum. Patients who have hitherto gone to Baguley will go to Monsall Hospital at Newton Heath; and the Corporation will provide motor ambulances. The only inconvenience will be the distance, and even that is only in the case of relatives visiting; and in my opinion this is more than compensated by the superior medical treatment guaranteed by the large resident medical staff.

The figures given in Table 50 show that 1913 was comparatively free from epidemics. Compared with 1911 and 1912 the admissions were :—

	1911	1912	1913
Bucklow	75	15	68
Alderley Edge	1	11	4
Ashton-on-Mersey... ..	10	1	1
Hale	11	29	13
Knutsford	27	4	6
Sale	24	6	5
Wilmslow	9	7	10
	157	73	107

15 cases were in hospital at the commencement of the year, making a total of 122 treated. Of these 97 were discharged, 6 died, and 19 remained in at the end of the year. These latter were 14 from Bucklow, 2 from Alderley Edge, 1 from Hale, and 2 from Wilmslow. The total number sent to hospital since December 8th, 1902, is 1388.

T. W. H. GARSTANG, D.P.H.,

February 25th, 1914.

Medical Adviser to the Board.

[illegible]

DATE.	DISEASE.	BUCK-LOW.			Alder-ley.			Ash-ton.			Hale.			Knuts-ford.			Sale.			Wilm-slow.			
		Admitted	Discharged	Died	Admitted	Discharged	Died	Admitted	Discharged	Died	Admitted	Discharged	Died	Admitted	Discharged	Died	Admitted	Discharged	Died	Admitted	Discharged	Died	
AUG.	Scarlet Fever	2	3	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	Admitted 3
	Diphtheria	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	Discharged 7
	Phthisis	...	1	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	Died 0
																							Remaining in 6
SEP.	Scarlet Fever	5	1	...	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1	...	...	Admitted 10
	Diphtheria	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	Discharged 3
	Phthisis	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	Died 0
																							Remaining in 13
OCT.	Scarlet Fever	6	3	1	...	...	...	...	...	...	1	1	...	...	...	...	1	...	...	1	...	...	Admitted 14
	Diphtheria	2	...	1	2	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	Discharged 6
	Enteric Fever	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	Died 2
	Puerperal Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	Remaining in 19
Nov.	Scarlet Fever	18	5	...	...	...	...	...	...	...	1	...	...	...	...	...	1	...	...	...	...	...	Admitted 20
	Diphtheria	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	Discharged 8
	Phthisis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	Died 0
																							Remaining in 31
DEC.	Scarlet Fever	4	11	1	...	...	...	...	...	...	2	...	...	...	...	...	...	...	2	...	...	...	Admitted 8
	Diphtheria	...	2	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	Discharged 18
	Enteric Fever	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	Died 2
	Puerperal Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	Remaining in 19
	Erysipelas	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	
	Phthisis	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
TOTALS	Scarlet Fever	49	38	2	1	4	...	1	1	...	5	10	...	1	...	1	1	...	8	7	...	...	
	Diphtheria	12	11	1	3	1	...	...	...	...	7	7	...	3	3	...	...	...	...	...	...	...	
	Enteric Fever	1	1	...	...	...	...	...	...	...	1	1	...	1	1	...	2	2	...	...	...	...	
	Puerperal "	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	
	Phthisis	6	5	...	...	...	...	...	...	...	...	...	...	1	1	...	1	1	...	1	1	...	
	Erysipelas	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	

	TOTALS.		
	Ad- mitted	Dis- charged	Died
Scarlet Fever	65	62	2
Diphtheria	25	22	1
Enteric Fever	5	3	2
Puerperal Fever	2	2	...
Erysipelas	1	...	1
Phthisis	9	8	...
	107	97	6

TABLE 51.

Number of cases sent to Hospital in each year.

1902	2
1903	122
1904	116
1905	95
1906	110
1907	125
1908	102
1909	208
1910	171
1911	157
1912	73
1913	107

POSTSCRIPTUM.

When I attained the age of 60 years in 1910, I notified my Councils of the fact, and offered to retire in favour of a younger man, if desired. I have very greatly valued, and shall never forget, the compliment which you paid me when you immediately and unanimously requested me to continue in your service.

Now I am within measurable distance of another milestone, the 65 years' limit, to be reached in the summer of 1915. The same date, within a few days, will mark the completion of 20 years' service as a Medical Officer of Health. In many respects I feel as youthful, as buoyant, and as enthusiastic as ever. But I have had far too many "little breakdowns" in health during the past 3 years; and it is certain that there is a definite limit now to my daily output of work, whether of the brain or of the muscles; and the limit itself is getting smaller each year.

Having then common-sense to recognise the inevitable, and having given the matter long and careful consideration, I beg respectfully to intimate that I desire to lay down my duties and vacate my appointments, at the end of 1915. And if you think that this will create an undesirable position in the interval, I will do so at the end of 1914.

I trust that my Councils will, *without delay*, decide the broad outline of their future policy; whether, by united action, they will engage a specially-qualified whole-time officer, or whether they will make separate appointments. In the latter case the probability of getting special qualifications will be diminished.

I trust that the question may be referred to a Committee, to consider and report, by each Council; and I shall be pleased to advise such Committee, if desired.

T. W. H. GARSTANG.



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